



ENGINE

EQUIP NUM: 145010

SERIAL NUMBER: FMC00701

H370-53249-0149

SAMPLE SHIP TIME (days) : 7

RECEIVED DATE: 06-Sep-23

CAT D8T

No Action Required

Interp By: Fluid Interpreter

Interpreted On: 06-Sep-23

NORMAL WEAR METAL READINGS. NO PROBLEMS PRESENTLY ASSOCIATED WITH THIS SAMPLE. CONTINUE SAMPLING AT THE NORMAL INTERVAL.

SAMPLE INFORMATION

	30-Aug-23	15-Feb-23	06-Dec-22	02-Nov-22
Sampled Date	30-Aug-23	15-Feb-23	06-Dec-22	02-Nov-22
Sample Id	H370-53249-0149	H370-53052-0134	H370-52343-0070	H370-52311-0188
Lab Date	06-Sep-23	21-Feb-23	09-Dec-22	07-Nov-22
Meter [Hr]	9813	9553	9380	9119
Meter On Fluid	250	173	261	256
Fluid Brand	NOTSUPPLIED			
Fluid Weight	15W-40	15W-40	15W-40	15W-40
Fluid Type				
Fluid Change	Y	N	Y	Y
Filter Change	Y	N	Y	Y
Total Fluid Added	0	0	0	0

PREVIOUS SAMPLE

NO PROBLEMS PRESENTLY ASSOCIATED WITH THIS SAMPLE. CONTINUE SAMPLING AT THE NORMAL INTERVAL.

For additional sample history, go to: [my.cat.com](http://my.cat.com)

CONDITION / CONTAMINATION

	30-Aug-23	15-Feb-23	06-Dec-22	02-Nov-22
<b>VISCOSITY (CENTISTOKES) ASTM D445</b>				
V100 Viscosity at 100 C	13.74	13.08	13.19	13.40

INFRARED (UFM) ASTM E2412

	30-Aug-23	15-Feb-23	06-Dec-22	02-Nov-22
ST Soot	9	3	3	4
OXI Oxidation	21	20	19	21
SUL Sulfur Products	24	22	23	23
NIT Nitration	8	6	7	6

WEAR LEVELS / ADDITIVES

	30-Aug-23	15-Feb-23	06-Dec-22	02-Nov-22
<b>ELEMENTAL ANALYSIS (PPM) ASTM D5185 [OIL] / ASTM D6130 [COOLANT]</b>				
Cu Copper	5	4	6	6
Fe Iron	27	10	11	9
Cr Chromium	0	2	4	0
Al Aluminum	0	2	5	0
Pb Lead	0	2	4	1
Sn Tin	0	0	2	0
Si Silicon	3	6	8	4
Na Sodium	2	2	6	3
K Potassium	0	0	3	0
Mo Molybdenum	46	47	47	46
Ni Nickel	0	3	4	0
Ag Silver	0	2	4	4
Ti Titanium	0	2	3	2
Mn Manganese	0	1	3	2
Ca Calcium	1813	1803	1773	1838
P Phosphorus	768	818	812	857
Zn Zinc	1014	963	975	997
Mg Magnesium	601	545	524	570
Ba Barium	0	1	4	0
B Boron	49	54	49	44

WATER

	30-Aug-23	15-Feb-23	06-Dec-22	02-Nov-22
W Water	N	N	N	N

ANTIFREEZE

	30-Aug-23	15-Feb-23	06-Dec-22	02-Nov-22
A Antifreeze	N	N	N	N

FUEL

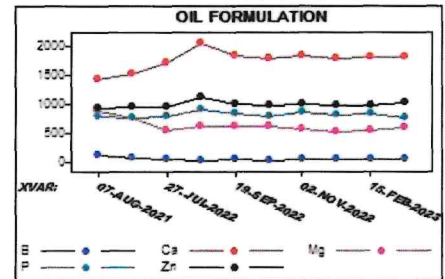
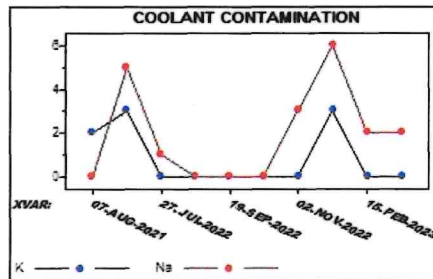
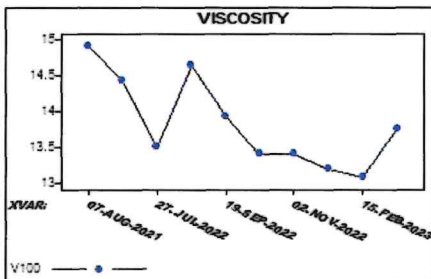
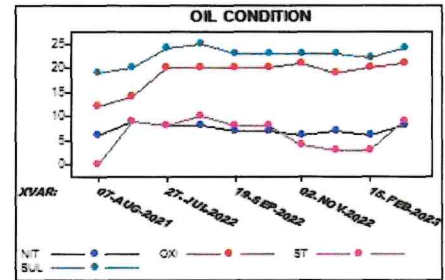
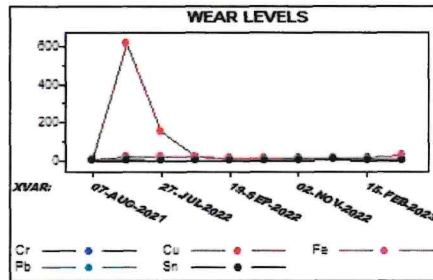
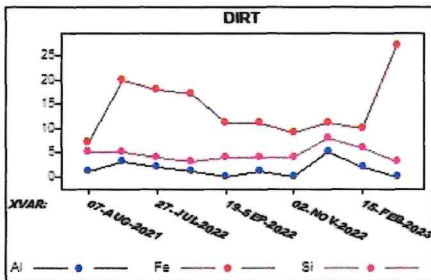
	30-Aug-23	15-Feb-23	06-Dec-22	02-Nov-22
F Fuel	N	N	N	N

CLEANLINESS

	30-Aug-23	15-Feb-23	06-Dec-22	02-Nov-22
<b>PARTICLE COUNT - ISO 11171:1999 reported per ISO 4406</b>				
ISO ISO Code Rating	12/11/0	18/12/0	21/15/11	
4µ 4µ	21	1574	13107	
6µ 6µ	11	32	228	
10µ 10µ	5	0	26	
14µ 14µ	0	0	16	
18µ 18µ	0	0	16	
21µ 21µ	0	0	5	
38µ 38µ	0	0	0	
50µ 50µ	0	0	0	

DEBRIS

	30-Aug-23	15-Feb-23	06-Dec-22	02-Nov-22
Debr Debris	N	P	Yes	N



Report Comment

Our sample reports has been updated! For more information on the new report, go to - <https://www.youtube.com/watch?v=4h8bREJvUrs>

**FINAL DRIVE REAR LEFT**

**EQUIP NUM: 145010**

**SERIAL NUMBER: FMC00701**

**CAT D8T**

**No Action Required**

**Interp By: Allsha Lyons**

**Interpreted On: 06-Sep-23**

**H370-53248-0231**

SAMPLE SHIP TIME (days) : 5

RECEIVED DATE: 05-Sep-23

NO PROBLEMS PRESENTLY ASSOCIATED WITH THIS SAMPLE. CONTINUE SAMPLING AT THE NORMAL INTERVAL.

**SAMPLE INFORMATION**

	31-Aug-23	15-Feb-23	03-Feb-22	15-Apr-21
Sampled Date	31-Aug-23	15-Feb-23	03-Feb-22	15-Apr-21
Sample Id	H370-53248-0231	H370-53054-0195	H370-52049-0276	H370-51137-0219
Lab Date	05-Sep-23	23-Feb-23	18-Feb-22	17-May-21
Meter [Hr]	9813	9553	7841	7331
Meter On Fluid	258	1705	767	257
Fluid Brand	MOBIL	MOBIL	MOBIL	MOBIL
Fluid Weight	50	50	50	50
Fluid Type				
Fluid Change	N	N	N	N
Filter Change	NA	N	U	N
Total Fluid Added	0	0	0	0

**PREVIOUS SAMPLE**

POSITIVE WATER PRESENT IN OIL. THIS IS TYPICALLY CONDENSATION. NO ABNORMAL WEAR SUSPECTED AT THIS TIME. OTHER RESULTS ARE ACCEPTABLE. CHANGE OIL AND FLUSH COMPONENT AS PER THE OMM TO REMOVE CONTAMINANTS AND INSPECT FOR SOURCE OF WATER ENTRY. REFILL WITH RECOMMENDED FLUID AND SAMPLE IN 125 HRS TO MONITOR.

For additional sample history, go to: [my.cat.com](http://my.cat.com)

**CONDITION / CONTAMINATION**

	31-Aug-23	15-Feb-23	03-Feb-22	15-Apr-21
<b>VISCOSITY (CENTISTOKES) ASTM D445</b>				
V100 Viscosity at 100 C	18.55	15.19		17.4

**INFRARED (UFM) ASTM E2412**

	31-Aug-23	15-Feb-23	03-Feb-22	15-Apr-21
ST Soot	0	0	0	0
OXI Oxidation	6	3	4	3
SUL Sulfur Products	14	16	15	17
NIT Nitration	5	4	6	4

**WATER**

	31-Aug-23	15-Feb-23	03-Feb-22	15-Apr-21
W Water	N	P	P	N

**CLEANLINESS**

**PARTICLE COUNT - ISO 11171:1999 reported per ISO 4406**

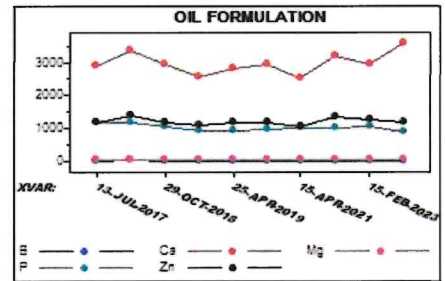
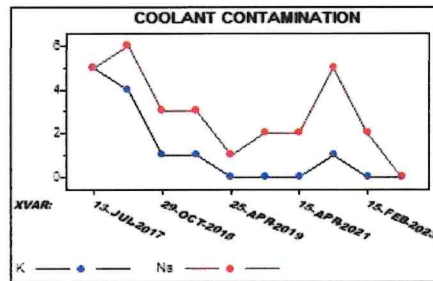
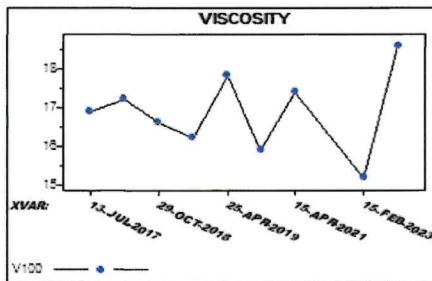
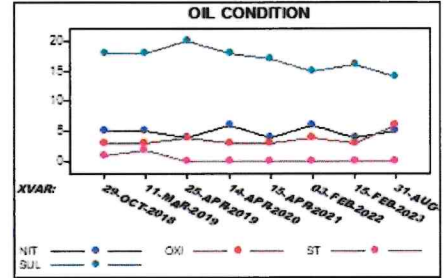
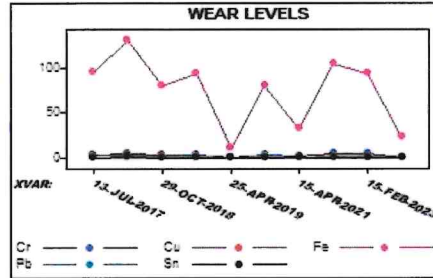
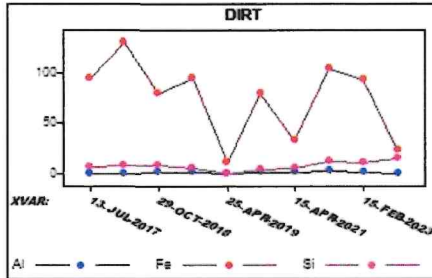
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4µ	4µ	5782		
6µ	6µ	1442		
10µ	10µ	53		
14µ	14µ	16		
18µ	18µ	16		
21µ	21µ	11		
38µ	38µ	11		
50µ	50µ	5		

**DEBRIS**

	31-Aug-23	15-Feb-23	03-Feb-22	15-Apr-21
Debri Debris	N	N	N	N

**WEAR LEVELS / ADDITIVES**

	31-Aug-23	15-Feb-23	03-Feb-22	15-Apr-21
<b>ELEMENTAL ANALYSIS (PPM) ASTM D5185 [OIL] / ASTM D6130 [COOLANT]</b>				
Cu Copper	0	1	1	0
Fe Iron	23	93	104	32
Cr Chromium	0	4	4	1
Al Aluminum	0	1	2	1
Pb Lead	0	0	0	0
Sn Tin	0	0	0	0
Si Silicon	14	10	12	5
Na Sodium	0	2	5	2
K Potassium	0	0	1	0
Mo Molybdenum	0	2	2	0
Ni Nickel	0	0	0	0
Ag Silver	0	0	0	0
Ti Titanium	0	0	0	0
Mn Manganese	0	1	2	
Ca Calcium	3561	2961	3209	2513
P Phosphorus	864	1022	1015	999
Zn Zinc	1186	1256	1328	1051
Mg Magnesium	9	12	14	5
Ba Barium	0	1	1	0
B Boron	1	3	1	0
Sb Antimony				0



**Report Comment**

Our sample reports has been updated! For more information on the new report, go to - <https://www.youtube.com/watch?v=4h8bREJVUrs>

**FINAL DRIVE REAR  
RIGHT**

H370-53248-0232

SAMPLE SHIP TIME (days) : 5

RECEIVED DATE: 05-Sep-23

**EQUIP NUM: 145010  
CAT D8T**

 **No Action Required**

**SERIAL NUMBER: FMC00701**

**Interp By: Alisha Lyons  
Interpreted On: 06-Sep-23**

TRACE WATER DETECTED, APPEARS TO BE CONDENSATION. NO ABNORMAL WEAR SUSPECTED. OTHER RESULTS ARE ACCEPTABLE. CONTINUE NORMALLY SCHEDULED SAMPLING TO MONITOR.

**SAMPLE INFORMATION**

	31-Aug-23	15-Feb-23	03-Feb-22	15-Apr-21
Sampled Date	31-Aug-23	15-Feb-23	03-Feb-22	15-Apr-21
Sample Id	H370-53248-0232	H370-53052-0186	H370-52049-0275	H370-51137-0220
Lab Date	05-Sep-23	21-Feb-23	18-Feb-22	17-May-21
Meter [Hr]	9813	9553	7841	7331
Meter On Fluid	258	1705	767	257
Fluid Brand	MOBIL	MOBIL	MOBIL	MOBIL
Fluid Weight	50	50	50	50
Fluid Type				
Fluid Change	N	N	N	N
Filter Change	NA	N	U	N
Total Fluid Added	0	0	0	0

**PREVIOUS SAMPLE**

POSITIVE WATER PRESENT IN OIL, THIS IS TYPICALLY CONDENSATION. NO ABNORMAL WEAR SUSPECTED AT THIS TIME. VISIBLE DEBRIS PRESENT IN SAMPLE. CHROME IS ELEVATED. NO INDICATION OF WHAT MAY BE CAUSING INCREASED WEAR. OTHER ANALYSIS READINGS APPEAR TO BE ACCEPTABLE. CHECK ANY SCREENS/ FILTERS/ PLUGS/ COVERS FOR ABNORMAL WEAR DEBRIS. CHECK FOR ANY UNUSUAL PERFORMANCE/ NOISES/ VIBRATIONS AND SAMPLE IN 250 HRS TO MONITOR.

For additional sample history, go to: [my.cat.com](http://my.cat.com)

**CONDITION / CONTAMINATION**

	31-Aug-23	15-Feb-23	03-Feb-22	15-Apr-21
<b>VISCOSITY (CENTISTOKES) ASTM D445</b>				
V100 Viscosity at 100 C	18.98	25.36	19.19	18.1

**WEAR LEVELS / ADDITIVES**

	31-Aug-23	15-Feb-23	03-Feb-22	15-Apr-21
<b>ELEMENTAL ANALYSIS (PPM) ASTM D5185 [OIL] / ASTM D6130 [COOLANT]</b>				
Cu Copper	0	2	0	0
Fe Iron	51	144	64	23
Cr Chromium	0	6	2	1
Al Aluminum	0	4	2	1
Pb Lead	0	1	0	0
Sn Tin	0	0	0	0
Si Silicon	24	16	10	7
Na Sodium	1	6	3	3
K Potassium	0	0	1	0
Mo Molybdenum	0	5	1	0
Ni Nickel	0	1	0	0
Ag Silver	0	1	0	0
Ti Titanium	0	1	0	0
Mn Manganese	0	2	1	
Ca Calcium	3435	3801	3276	2526
P Phosphorus	857	1390	1019	976
Zn Zinc	1183	1621	1346	1038
Mg Magnesium	10	13	13	5
Ba Barium	0	1	0	0
B Boron	0	3	1	1
Sb Antimony				0

**INFRARED (UFM) ASTM E2412**

	31-Aug-23	15-Feb-23	03-Feb-22	15-Apr-21
ST Soot	0	0	0	0
OXI Oxidation	7	4	3	3
SUL Sulfur Products	15	16	17	17
NIT Nitration	5	5	4	4

**WATER**

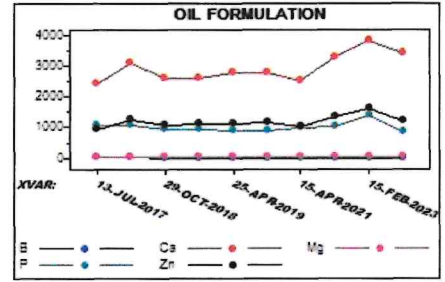
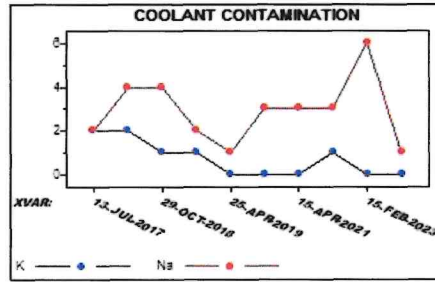
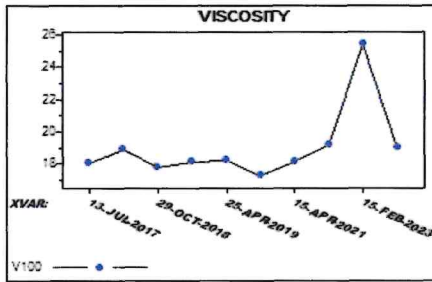
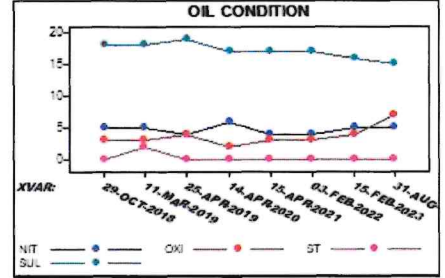
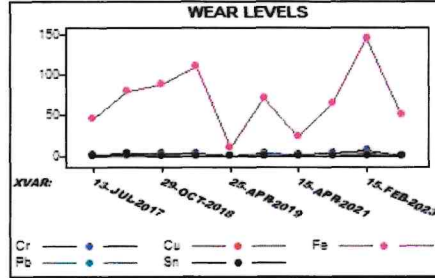
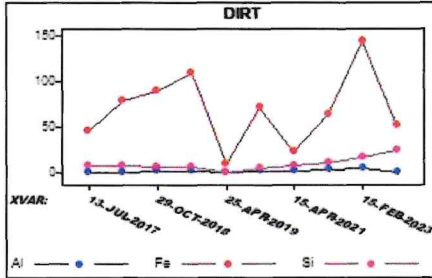
	31-Aug-23	15-Feb-23	03-Feb-22	15-Apr-21
W Water	T	P	N	N

**CLEANLINESS**

	31-Aug-23	15-Feb-23	03-Feb-22	15-Apr-21
<b>PARTICLE COUNT - ISO 11171:1999 reported per ISO 4406</b>				
ISO ISO Code Rating	20/18/12	23/21/17	21/17/11	
4µ 4µ	8930	78000	16690	
6µ 6µ	1622	12132	832	
10µ 10µ	80	2687	37	
14µ 14µ	21	917	11	
18µ 18µ	11	344	0	
21µ 21µ	5	180	0	
38µ 38µ	0	5	0	
50µ 50µ	0	0	0	

**DEBRIS**

	31-Aug-23	15-Feb-23	03-Feb-22	15-Apr-21
Debr Debris	N	P	N	N



Report Comment

Our sample reports has been updated! For more information on the new report, go to - <https://www.youtube.com/watch?v=4h8bREJVUrs>



**TRANSMISSION POWER**

**SHIFT**

H370-53250-0044

SAMPLE SHIP TIME (days) : 7

RECEIVED DATE: 07-Sep-23

EQUIP NUM: 145010

CAT D8T

**No Action Required**

SERIAL NUMBER: FMC00701

Interp By: Fluid Interpreter

Interpreted On: 07-Sep-23

NORMAL WEAR METAL READINGS. NO PROBLEMS PRESENTLY ASSOCIATED WITH THIS SAMPLE. CONTINUE SAMPLING AT THE NORMAL INTERVAL.

**SAMPLE INFORMATION**

	31-Aug-23	15-Feb-23	06-Nov-22	02-Nov-22
Sampled Date	31-Aug-23	15-Feb-23	06-Nov-22	02-Nov-22
Sample Id	H370-53250-0044	H370-53052-0072	H370-52343-0047	H370-52311-0087
Lab Date	07-Sep-23	21-Feb-23	09-Dec-22	07-Nov-22
Meter [Hr]	9813	9553	9380	9119
Meter On Fluid	258	2479	2306	921
Fluid Brand	NOTSUPPLIED			
Fluid Weight	30	50	30	30
Fluid Type				
Fluid Change	N	N	N	N
Filter Change	N	N	Y	N
Total Fluid Added	0	0	0	0

**PREVIOUS SAMPLE**

NO PROBLEMS PRESENTLY ASSOCIATED WITH THIS SAMPLE. CONTINUE SAMPLING AT THE NORMAL INTERVAL.

For additional sample history, go to: [my.cat.com](http://my.cat.com)

**CONDITION / CONTAMINATION**

		31-Aug-23	15-Feb-23	06-Nov-22	02-Nov-22
<b>VISCOSITY (CENTISTOKES) ASTM D445</b>					
V100	Viscosity at 100 C	12.04	11.12	11.48	11.76

**INFRARED (UFM) ASTM E2412**

		31-Aug-23	15-Feb-23	06-Nov-22	02-Nov-22
ST	Soot	0	0	0	0
OXI	Oxidation	6	3	3	3
SUL	Sulfur Products	15	18	18	19
NIT	Nitration	5	4	4	4

**WEAR LEVELS / ADDITIVES**

		31-Aug-23	15-Feb-23	06-Nov-22	02-Nov-22
<b>ELEMENTAL ANALYSIS (PPM) ASTM D5185 [OIL] / ASTM D6130 [COOLANT]</b>					
Cu	Copper	0	3	6	6
Fe	Iron	3	11	12	11
Cr	Chromium	0	0	4	0
Al	Aluminum	0	0	4	0
Pb	Lead	0	0	4	1
Sn	Tin	0	0	2	0
Si	Silicon	3	5	8	5
Na	Sodium	0	4	8	4
K	Potassium	0	0	3	0
Mo	Molybdenum	0	0	3	0
Ni	Nickel	0	0	3	0
Ag	Silver	0	1	4	4
Ti	Titanium	0	0	3	2
Mn	Manganese	0	0	3	2
Ca	Calcium	3649	3291	3174	3289
P	Phosphorus	910	1146	1109	1119
Zn	Zinc	1255	1380	1335	1385
Mg	Magnesium	10	9	12	9
Ba	Barium	0	0	4	0
B	Boron	0	1	4	4

**WATER**

		31-Aug-23	15-Feb-23	06-Nov-22	02-Nov-22
W	Water	N	N	N	N

**ANTIFREEZE**

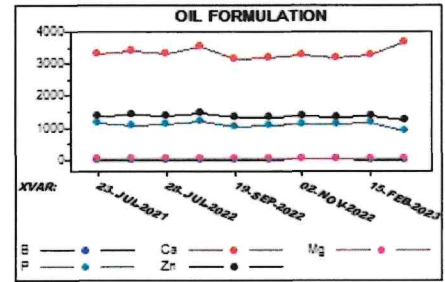
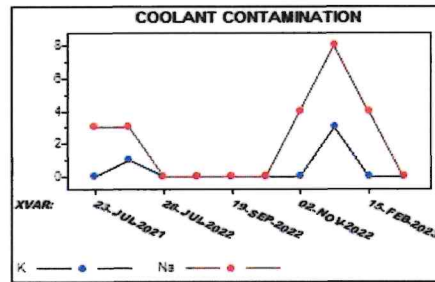
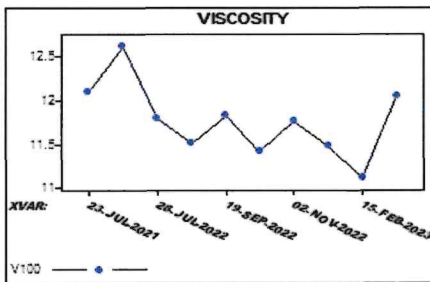
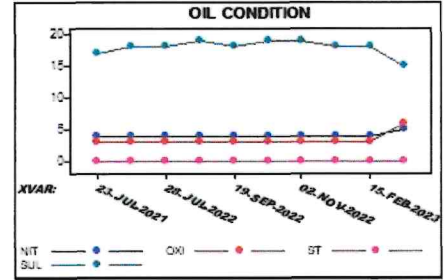
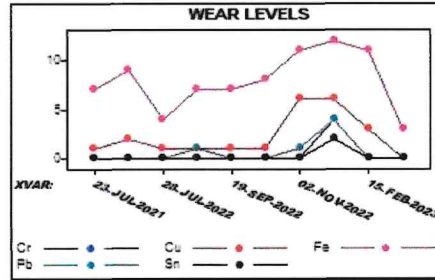
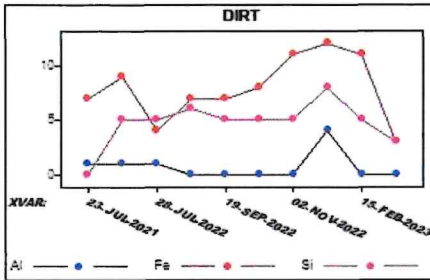
		31-Aug-23	15-Feb-23	06-Nov-22	02-Nov-22
A	Antifreeze		N	N	N

**CLEANLINESS**

		31-Aug-23	15-Feb-23	06-Nov-22	02-Nov-22
<b>PARTICLE COUNT - ISO 11171:1999 reported per ISO 4406</b>					
ISO	ISO Code Rating	14/13/12	15/13/11	16/14/11	15/13/11
4µ	4µ	106	302	514	292
6µ	6µ	69	80	143	74
10µ	10µ	21	16	37	26
14µ	14µ	21	11	11	11
18µ	18µ	16	0	5	5
21µ	21µ	11	0	0	0
38µ	38µ	0	0	0	0
50µ	50µ	0	0	0	0

**DEBRIS**

		31-Aug-23	15-Feb-23	06-Nov-22	02-Nov-22
Debr	Debris	N	N	N	N



**Report Comment**

Our sample reports has been updated! For more information on the new report, go to - <https://www.youtube.com/watch?v=4h8bREJVUrs>



**HYDRAULIC SYSTEM**

**EQUIP NUM: 145010**

**SERIAL NUMBER: FMC00701**

**CAT D8T**

**No Action Required**

**Interp By: Dipali Rote**  
**Interpreted On: 06-Sep-23**

**H370-53248-0045**

SAMPLE SHIP TIME (days) : 5

RECEIVED DATE: 05-Sep-23

NO PROBLEMS PRESENTLY ASSOCIATED WITH THIS SAMPLE. CONTINUE SAMPLING AT THE NORMAL INTERVAL.

**SAMPLE INFORMATION**

	31-Aug-23	15-Feb-23	06-Dec-22	02-Nov-22
Sampled Date	31-Aug-23	15-Feb-23	06-Dec-22	02-Nov-22
Sample Id	H370-53248-0045	H370-53052-0035	H370-52346-0036	H370-52311-0041
Lab Date	05-Sep-23	21-Feb-23	12-Dec-22	07-Nov-22
Meter [Hr]	9813	9553	9380	9119
Meter On Fluid	258	1705	2306	1271
Fluid Brand	NOTSUPPLIED			
Fluid Weight	10W	10W	10W	10W
Fluid Type				
Fluid Change	N	N	N	N
Filter Change	N	N	Y	N
Total Fluid Added	0	0	0	0

**PREVIOUS SAMPLE**

NO PROBLEMS PRESENTLY ASSOCIATED WITH THIS SAMPLE. CONTINUE SAMPLING AT THE NORMAL INTERVAL.

For additional sample history, go to: [my.cat.com](http://my.cat.com)

**CONDITION / CONTAMINATION**

	31-Aug-23	15-Feb-23	06-Dec-22	02-Nov-22
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**VISCOSITY (CENTISTOKES) ASTM D445**

V100	Viscosity at 100 C	9.133	8.724	8.587	8.749
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**INFRARED (UFM) ASTM E2412**

ST	Soot	0	0	0	0
OXI	Oxidation	16	16	2	16
SUL	Sulfur Products	24	23	11	25
NIT	Nitration	2	2	2	3

**WEAR LEVELS / ADDITIVES**

	31-Aug-23	15-Feb-23	06-Dec-22	02-Nov-22	
<b>ELEMENTAL ANALYSIS (PPM) ASTM D5185 [OIL] / ASTM D8130 [COOLANT]</b>					
Cu	Copper	0	3	3	6
Fe	Iron	1	4	4	6
Cr	Chromium	0	0	1	0
Al	Aluminum	0	0	2	0
Pb	Lead	0	1	1	1
Sn	Tin	0	0	0	1
Si	Silicon	0	2	3	2
Na	Sodium	0	1	2	4
K	Potassium	0	0	2	0
Mo	Molybdenum	0	0	1	0
Ni	Nickel	0	0	1	0
Ag	Silver	0	1	2	4
Ti	Titanium	0	0	1	3
Mn	Manganese	0	0	0	2
Ca	Calcium	123	127	128	121
P	Phosphorus	214	298	302	308
Zn	Zinc	42	56	57	61
Mg	Magnesium	1	3	4	4
Ba	Barium	0	0	1	0
B	Boron	0	1	2	4

**WATER**

W	Water	N	N	N	N
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**ANTIFREEZE**

A	Antifreeze	N	N	N
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**CLEANLINESS**

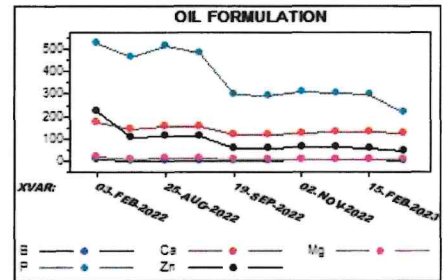
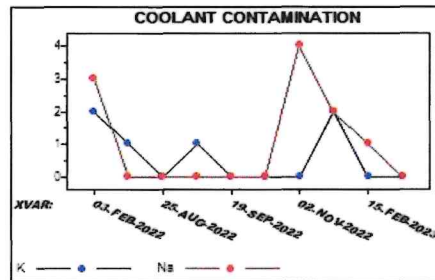
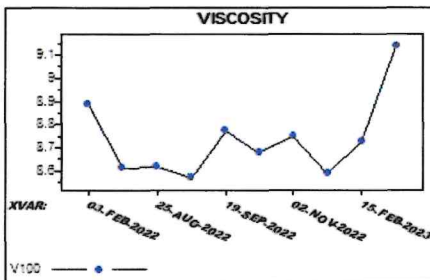
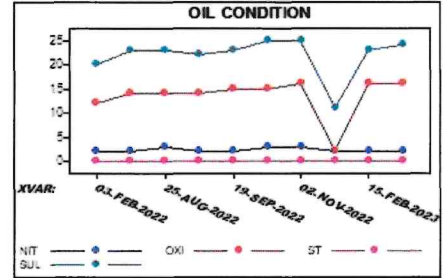
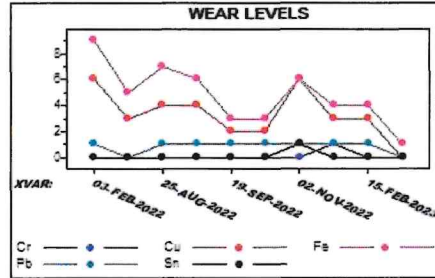
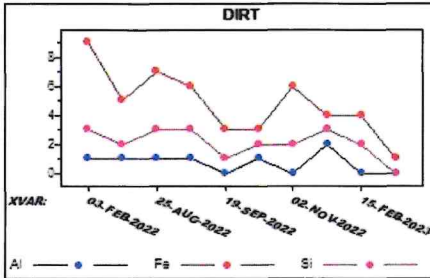
	31-Aug-23	15-Feb-23	06-Dec-22	02-Nov-22
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**PARTICLE COUNT - ISO 11171:1999 reported per ISO 4406**

ISO	ISO Code Rating	14/13/11	15/14/11	HBL	15/13/11
4μ	4μ	95	249	0	201
6μ	6μ	58	85	0	69
10μ	10μ	26	26	0	32
14μ	14μ	11	11	0	16
18μ	18μ	5	5	0	16
21μ	21μ	5	0	0	16
38μ	38μ	0	0	0	5
50μ	50μ	0	0	0	0

**DEBRIS**

Debr	Debris	N	N	P	N
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**Report Comment**

Our sample reports has been updated! For more information on the new report, go to - <https://www.youtube.com/watch?v=4h8bREJVUrs>

S/N: OFMIC00701 - D81-T4  
216 CATERPILLAR(AA) TRACK TYPE TRACTORS

Mr. [REDACTED] PORTLAND

SMU: 9.817(HI Work Order) on Nov 07. 20...  
Stock No: N17580 Unit #:

7 Services Letters: 3 Score: 50

Segment View

Seg No.	Hours	AT	Job	Total Labor:	45,420.00	Total Labor Hours:	1,016.0	Total Amount:	272,827.30
40	127,975.09						1,320.85		
Total Work Orders:									
Total Parts:									

WO No. 1527138 (ACT: 1) Ticket No. 1317051 (Nov 01, 2023) - [REDACTED] SMU: 9817H Nov 02, 2023  
108U - AFTERTREATMENT SYSTEM

Seg No.	Hours	AT	Job	Component	Pr Cust.	Lbr Cust.	Misc Cust.
01	2	C	035 - TROUBLESHOOT				
02	3	C	510 - REPLACE	1401 - BATTERY			

574 CUSTOMER COMPLAINT: MACHINE IS THROWING CODE.  
CAUSE OF FAILURE: DPF PRESSURE DIFFERENTIAL WAS NOT READING IN RANGE.  
CONTINGENT DAMAGE: NONE.  
CORRECTIONS: CONNECTED WITH ET, FOUND ACI 2458-13 DPF PRESSURE DIFFERENTIAL SENSOR CALIBRATION REQUIRED. REMOVED SENSING LINE CHECKED FOR RESTRICTIONS. ALL WERE CLEAR. F SENSOR AND BRACKET. CLEANED BRACKET AND F SENSOR WAS CORRODED INSIDE. REPLACED SENS PERFORMED AFTERTREATMENT SYSTEM FUNCTIONAL TEST PASSED AND NO ACTIVE CODES. CLEARED U CODE AND TOOK PSR.

1,544 CUSTOMER COMPLAINT: BATTERIES ARE DEAD AND HAS TO BE JUMP STARTED EVERY TIME. REPLACE BATTERIES.  
CAUSE OF FAILURE: NONE.  
CONTINGENT DAMAGE: NONE.  
CORRECTIONS: REMOVED COVERS TO ACCESS BATTERY DISCONNECTED CABLES AND USED 1/2" IMPACT REMOVE HOLD DOWN BOLTS DUE TO CORROSION AND INSTALLED BATTERIES. CLEANED HOLD DOY AND MOUNTED. RECONNECTED BATTERY CABLES AND TURNED OFF MASTER DISCONNECT SWITCH DONE.

0 INSPECTION  
363 AT YARD  
Total \$2,481.44

AA	0	C	540 - PERFORM	7583 - INSPECTION			
B1	2.5	C	056 - TRAVEL TO/FROM	7000 - MACHINE			

WO No. 1545712 (ACT: 1) Ticket No. 1345712 (Apr 10, 2023) - [REDACTED] SMU: 9556H Apr 10, 2023  
7206 - EQUALIZER BAR

01	14	C	010 - REMOVE & INSTALL	7206 - EQUALIZER BAR			
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2,551 CUSTOMER COMPLAINT: REMOVE AND INSTALL EC CAUSE OF FAILURE: BAD BEARING BORE CONTINGENT DAMAGE:  
CORRECTIONS: FOUND ALL PULLER PLATES TO REINSTALL PINS UNBOLTED THE SEAL HOLDER ON SHAFT. REMOVED PINS FROM ROLLER FRAME. LIF MACHINE AND INSTALLED STANDS UNDER HARD NOISE. HOOKED UP PULLER ON CENTER PIN AND PULL OUT IT WAS STUCK IN THE BORE. PUT SOM TO PIN AND STILL DID NOT MOVE. HAD TO CUT CENTER OF PIN REMOVED PIN AND BAR. INSTALLED AFTER REPAIRS WERE MADE INSTALLED PINS AND HOLDER AND LOWER MACHINE BACK DOWN.  
1,988 CUSTOMER COMPLAINT: REPAIR OUTBOARD BEAR SNAP RING BORE  
CAUSE OF FAILURE:  
CONTINGENT DAMAGE:  
CORRECTIONS: SNAP RINGS EMBEDDED INTO BORE CORRECTIONS: REMOVED SNAP RING WITH TORO GRINDER. DRILLED OUT GREASE HOLE. PREP FOR

BUILT UP BORE WITH THE WELD TWO PASSES PER UP IN MILL. PLACED HOLD DOWNS. MACHINED 1 5.000, 1.25 X 4.575. SAND RING GRINDS. CLEANED AND INSTALLED NEW CAT BEARINGS SNAMP RING FITTINGS. PRE GREASED AND PAINTED

Total: \$4,548.30

WO No. [REDACTED] (ACT: 1) Ticket No. 1324951 (Dec 02, 2022) SMU: 9058H Dec 02, 2022  
108U - AFTERTREATMENT SYSTEM

4.451 CUSTOMER COMPLAINT: LOGGED CODE OF 2490 CAUSE OF FAILURE: WIRE HARNESS CONTINGENT DAMAGE: CORRECTIONS: PLUGGED ET INTO THE MACHINE. THAT THE 2490 CODES WERE LOGGED. WIGGLE HARNESS AROUND AND FOUND THAT THE CODE AND GO. FOUND THAT THERE WAS AN UPDATED SECURE THE HARNESS TO THE BACK OF THE HEA WITH THE CUSTOMER ABOUT THE ISSUE AND DE REPALCE THE HARNESS AND UPDATE THE MOUNT PARTS UP. RETURNED TO THE MACHINE. REMOVE HARNESS THAT WENT FROM THE ENGINE ECM TO PACKAGE AND ALSO TO THE HYDRAULIC PUMPS. THE NEW HARNESS. SECURED IT WITH ZIP TIES. T THE KEY ON. WIGGLED THE NEW HARNESS AND DID NOT COME BACK. HOOKED ET UP TO THE MA CLEARED ALL OF THE CODES.

3.052 CUSTOMER COMPLAINT: OIL PAN LEAKS CAUSE OF FAILURE: GASKET CONTINGENT DAMAGE: CORRECTIONS:

THE CUSTOMER HAD TIGHTEN TH EARLIER IN THE YEAR, BUT IT WAS STILL LEAKING. REMOVED THE BELLY PANS. DRAINED THE OIL OI PAN. UNBOLTED THE OIL PAN. UNBOLTED THE R MOUNTS ON THE TORQUE CONVERTER. JACKED T THE ENGINE UP. REMOVED THE DIPSTICK TUBE A DAMAGED IT. REMOVED THE PAN. CLEANED ALL I SURFACES UP. GLUED THE NEW GASKET TO THE INSTALLED FLEXIBLE GASKET MAKER TO THE SEA THE UNDERSIDE OF THE BLOCK. INSTALLED THE INSTALLED THE NEW DIPSTICK TUBE. TORQUE T TO SPEC. LOWERED THE REAR OF THE ENGINE. TO MOUNTING BOLTS TO SPEC. FILLED THE ENGINE OIL.

1,261

Total: \$8,762.84

WO No. [REDACTED] (ACT: 1) Ticket No. 1315557 (Oct 07, 2022) SMU: 9066H Oct 27, 2022  
108U - AFTERTREATMENT SYSTEM

5.512 CUSTOMER COMPLAINT: TROUBLESHOOT AFTERTI CAUSE OF FAILURE:DPF HIGH SOOT LOADING CONTINGENT DAMAGE: CORRECTIONS: TRAVEL TO MACHINE FOR SYSTEM DUE TO AFTERTREATMENT FOUND ACTIVE EVENT RAN MACHINE THROUGH MANUAL REGEN AND DPF SYSTEM. MACHINE COMPLETED REGEN. BUT IFO SOOT LOAD CLIMBING TOO QUICKLY WHILE RAC RUNNING. TRAVEL BACK TO MACHINE AND REPAIR RAN MACHINE THROUGH REGEN TO VERIFY REPAIR RELEASE MACHINE BACK TO WORK

1,719

Total: \$8,762.84

1302 - ENGINE OIL PAN

7000 - MACHINE

510 - REPLACE

035 - TROUBLESHOOT

13 C

02

108U - AFTERTREATMENT SYSTEM

035 - TROUBLESHOOT

9 C

01

7304 - CAB HEATER

023 - REPAIR

1 C

02

CYCLING. DID NOT HAVE GAUGES TO CHECK SYS PRESSURES

192 CALL FOR DIRECTIONS

Total: \$5,883.29

7000 - MACHINE

056 - TRAVEL TO/FROM

1 C

WO No. 13025001 (ACTI: I) Ticket No. 13025001 (Sep 02, 2022) SMU: 846241 Sep 02, 2022

108U - AFTERTREATMENT SYSTEM

035 - TROUBLESHOOT

2.5 C

7.

01

01

01

7000 - MACHINE

056 - TRAVEL TO/FROM

2 C

WO No. 13005001 (ACTI: I) Ticket No. 13005001 (Jul 15, 2022) SMU: 8001H Jul 20, 2022

1805 - REFRIGERANT CONDENSER

035 - TROUBLESHOOT

5 C

01

01

01

2.007 CUSTOMER COMPLAINT: TROUBLESHOOT AIR CONDITIONING

CAUSE:

CONTINGENT DAMAGE:

COMPLICATIONS:

CORRECTIONS:

CUSTOMER STATED AIR WORKS INTERMITTENTLY

MACHINE AND MONITORED EVAPORATOR TEMPER

TEMPERATURE WAS AROUND AMBIENT AIR TEMPI

INSPECTED CONDENSER, FOUND FANS WERE NOT

OPERATING, REMOVED TOP SCREEN, CHECKED FC

AT FAN, HAD POWER, PLUGGED IN NEW FAN, FA

ON, REMOVED AND INSTALLED NEW CONDENSER

WHILE INSPECTING CONDENSER, FOUND MOUNT

CUT, REMOVED AND INSTALLED NEW MOUNTS A

HARDWARE, REINSTALLED SCREEN, RAN MACHINE

AIR CONDITIONING, AIR CONDITIONING IS NOW W

PROPERLY.

192

Total: \$2,199.48

7000 - MACHINE

056 - TRAVEL TO/FROM

1 C

WO No. 12052002 (ACTI: I) Ticket No. 12052002 (Apr 19, 2022) SMU: 7853H Apr 20, 2022

0785 - ELECTRICAL TEST EQUIPMENT

035 - TROUBLESHOOT

3 C

01

01

01

751 CUSTOMER COMPLAINT: TROUBLESHOOT ELECTRICAL SYSTEM

CAUSE:

SHORTED MAIN POWER RELAY

CONTINGENT DAMAGE:

NO POWER TO MACHINE

COMPLICATIONS:

CORRECTIONS:

MACHINE WAS LOCATED ON ISLAND, TOOK BOAT

ISLAND, TURNED ON KEY IN MACHINE, MAIN POW

WAS CLICKING AND MONITOR DID NOT POWER U

REMOVED SIDE PANEL TO ACCESS RELAY, CHECKE

POWER TO RELAY, RELAY WAS RECEIVING PROPER

REMOVED AND INSTALLED NEW RELAY, CHECKED

ON RELAY, MACHINE NOW STARTS PROPERLY,

REINSTALLED SIDE PANEL, TOOK BOAT BACK TO :

TRUCK

96 OWL CREEK

Total: \$3,446.89

7000 - MACHINE

056 - TRAVEL TO/FROM

0.5 C

01

01

01

WO No 1911121 (ACT: I) Ticket No 127672 (Jan 20, 2021) SMU: 7791H Jan 21, 2021  
01 5.5 C 510 - REPLACE 108U - AFTERTREATMENT SYSTEM

B1 1 C 056 - TRAVEL TO/FROM 7000 - MACHINE

WO No 1911121 (ACT: I) Ticket No 127685 (Jul 08, 2021) SMU: 7342H May 17, 2021  
01 13 C 787 - REWORK/REDO 1059 - EXHAUST MANIFOLD

WO No 1911121 (ACT: I) Ticket No 127666 (Apr 30, 2021) SMU: 7342H May 17, 2021  
01 15 C 023 - REPAIR 1059 - EXHAUST MANIFOLD

02 3.5 C 510 - REPLACE 7209 - EQUALIZER BAR SUSP PAD

B1 5 C 056 - TRAVEL TO/FROM 7000 - MACHINE

2,624 CUSTOMER COMPLAINT:TROUBleshoot AFTER  
CAUSE OF FAILURE:ARD HEAD  
CONTINGENT DAMAGE:  
CORRECTIONS:  
CORRECTIONS:HOOK UP TO MACHINE AND FOUNI  
E1026-2 AND E1050-1. TROUBleshoot COOKES A  
ARD HEAD DIDNT PASS TESTS. REPLACE ARD HEA  
RUN MACHINE TO TEST. OK. RELEASE MACHINE T.

218 RAINIER  
Total \$2,941.00

9138270 9138270 9138270 9138270

996 6382 CUSTOMER COMPLAINT: BROKEN MANIFOLD STU  
CAUSE OF FAILURE: FAILED STUD, BROKEN  
CONTINGENT DAMAGE: NONE  
CORRECTIONS: ADDITIONAL STUD BROKE WHIL  
REMOVING THE BACK HALF OF MANIFOLD  
CORRECTIONS: TRIED TO REMOVE STUD WITH M  
ON. COULDN'T GET IT OUT. BROKE ANOTHER STL  
REMOVING THE BACK HALF OF THE MANIFOLD. R  
THE STUD THAT BROKE BY WELDING ON IT. COU  
THE FIRST BROKEN ONE OUT. HAD TO GRIND IT A  
THE HOLE. REINSTALLED THE MANIFOLD AND NE  
AND HARDWARE. TESTED. REINSTALLED THE PAN

Total \$996.28

9132260 9132260 9132260 9132260

3,284 CUSTOMER COMPLAINT:  
BROKEN MANIFOLD STUD  
CAUSE:  
FAILED STUD, BROKEN  
CONTINGENT DAMAGE:  
NUMBER FIVE AND SIX CYLINDERS HAD DAMAGE;  
DAMAGED STUD HOLES IN CYLINDER HEAD  
CORRECTIONS:  
HAD TO REMOVE THE WATER REGULATOR HOUSING  
ACCESS TO THE BROKEN STUDS IN NUMBER ONE  
INSTALLED NEW THERMOSTATS, AND SEALS IN T  
REGULATOR HOUSING. INSTALLED THE WATER RI  
HOUSING AFTER THE EXHAUST MANIFOLD REPAIR  
CORRECTIONS:  
CHECKED THE EXHAUST SYSTEM AND  
FOUND NUMBER FIVE AND SIX CYLINDERS HAD D  
GASKETS. REMOVED AIR PIPING, COOLANT HOSES  
TURBOCHARGER OIL LINES. REMOVED THE EXHAL  
MANIFOLD ASSEMBLY. REMOVED ALL OF THE EXH  
STUDS AND HAD TWO STUDS BREAK ON CYLINDER  
NUMBER ONE. TRIED TO WELD OUT THE BROKEN  
THE STUDS JUST CRUMBLLED. DRILLED OUT THE I  
STUDS. THE STUD HOLES IN THE CYLINDER HEAD  
WERE DAMAGED SO INSTALLED HELICOILS TO RE  
THE HEAD. INSTALLED THE MANIFOLD ASSEMBLY  
NEW GASKETS, STUDS, NUTS, AND MANIFOLD JO  
SEALERS. TORQUED THE STUDS TO 18 LBS. AND  
THE MANIFOLD RETAINING NUTS TO 32 LBS. INST  
THE LUBE LINES, COOLANT HOSES, AND AIR PIPIN  
FILLED THE COOLING SYSTEM AND RAN THE MAX  
AFTER THE REPAIR.  
HAS AT LEAST ONE BROKEN EXHAUST STUD

559 COMPLAINT  
REPLACE BROKEN BOGIE PADS  
CAUSE:  
BROKEN BOGIE PADS  
CONTINGENT DAMAGE: NONE  
CORRECTIONS: NONE  
CORRECTIONS:  
PUT THE MACHINE UP ON BLOCKS,  
LOOSENED THE TRACKS, AND THEN REMOVED AN  
THE UPPER BOGIE PADS. ADJUSTED THE TRACKS I  
THE MACHINE BACK ON THE GROUND.

700  
[REDACTED]  
[REDACTED] ST

PORTLAND, OR 97217  
OR  
360-957-9178  
6382-TRAVEL

Total \$4,500.00

WO No. 15977291 (ACT: 1) Ticket No. 1180106 (Aug 19, 2020) (SMU: 7205H Aug 20, 2020)  
01 2 C 035 - TROUBLESHOOT

108U - AFTER TREATMENT SYSTEM

302 COMPLAINT: ACTIVE FAULT  
CAUSE: UNKNOWN  
CONTINGENT DAMAGE:  
CORRECTIONS:  
CORRECTIONS: THE CUSTOMER CALLED AND STATED THERE WAS AN ACTIVE FAULT #1041. PLUGGED THE MACHINE. FOLLOWED THE TROUBLESHOOT PROCEDURE IN SIS. PERFORMED THE AIR SERVICE AND IT PASSED. REMOVED THE COVERS OF THE ENGINE. INSPECTED THE HARNESS AND FOUND AN AREA WHERE IT WAS SECURED TO A CLAMP. REPAIRED RUBBED WIRE. SECURED IT BETTER. CHECKED THE CODES. WAS STILL ACTING THE CODES WENT IN LOGGED MODE. COULD NOT MAKE IT GO. ACTIVE INSTALLLED THE ENGINE COVERS. CLEARED THE CODES. ALL IS GOOD BUT NO FAULT FOUND  
CODE CLEARED BUT NO FAULT FOUND  
EMISSIONS WARRANTY ENDED AT 3000 HOURS

Total \$302.00

WO No. 15977291 (ACT: 1) Ticket No. 1159082 (Apr 24, 2020) (SMU: 7074H Apr 27, 2020)  
00 6.5 C 070 - CLEAN

7000 - MACHINE

01 2.5 C 035 - TROUBLESHOOT

1348 - ENGINE OIL

9138210

689 6543 5/8/20- DROPPED BELLY PAN CLEANED SAND BELLY PANS CLEANED ENGINE AREA.

89 COMPLAINT:  
LEAKING OIL AT RIGHT FRONT CORNER OF ENGINE.  
CAUSE:  
CORRECTION:  
6069 04/27, 6069 DISCONNECTED AND REMOVED BELLY PAN AND TORQUE BELLY PAN. INSPECTED LEAKING OIL. FOUND THE FRONT RIGHT CORNER OF THE ENGINE IS LEAKING AT THE FRONT COVER. F STRUCTURE AREA. SEE PICTURES. SHOWED CUSTOMER DOES NOT WANT TO DISASSEMBLE IT DOWN NEAR THE RIVER. CUSTOMER WOULD RAU HAUL IT TO THE SHOP. (TO ACCESS THE FRONT CORNER AND FRONT STRUCTURE AREA. THE HARD NOSE V TO BE TIPPED FORWARD). INSTALLED BELLY PAN DISCONNECTED AND REMOVED BLADE PREPARED MACHINE FOR SHIPPING.  
NOTE: THERE IS LEAKING OIL AT THE STARTER W/ CONE AND THE ENGINE FUMES DISPOSAL AREAS

02 4.5 C 035 - TROUBLESHOOT

1000 - ENGINE

9132260

581 COMPLAINT  
MACHINE LEAKING OIL FROM ENGINE  
CAUSE  
GASKET COLLAPSED  
CORRECTIONS  
6543 5/12/20- RAN MACHINE TO VERIFY LEAK AT COVER. FOUND THE FRONT RIGHT CORNER OF THE ENGINE IS LEAKING AT THE FRONT COVER. F STRUCTURE AREA. THERE IS LEAKING OIL AT THE STARTER NOSE CONE AND THE ENGINE FUMES DISPOSAL AREAS

03 91 C 023 - REPAIR

1151 - FRONT COVER/HOUSING

9132260

9132260

12,973 CUSTOMER COMPLAINT:  
FRONT COVER LEAKING  
CAUSE OF FAILURE:  
FRONT COVER GASKET FAILURE  
CONTINGENT DAMAGE:  
OIL LEAKING OUT OF FRONT COVER  
COMPLICATIONS:  
OIL PAN GASKET COMPROMISED. MOUNTING PINS VERY RUSTY HEAD STRIPPED OUT. REMOVING HEAD PINS. THE BEARING CAME OUT WITH IT.  
CORRECTIONS:  
6543 5/8/20- BROUGHT MACHINE INTO SHOP. RE ENGINE SIDE PANELS. REMOVED HOOD ASSEMBLY 6543 5/11/20- DRAINED ENGINE OIL. HYD OIL AND COOLANT. REMOVED ALL HYD LINES AND COOLANT GOING TO RADIATOR GUARD. TAPPED LIFTING PC STRUCTURE. ALLEN HEAD BOLTS THAT HOLD RE

MOUNTING PINS IN ARE VERY RUSTY HEAD STRIP OF LIFT SIDE.  
 6543 5/12/20- REMOVED PIN RETAINERS ON HAR GOT PULLING SUPPLIES TOGETHER FOR REMOV LIFTED TRACK BOTH SIDES FOR ENOUGH ROOM TOOLING. REMOVED LEFT SIDE PIN. HEATED RIG SIDE PIN. LET COOL AND REMOVED. UPON REMC PIN HARD-NOSE BEARING CAME WITH PIN.  
 6543 5/13/20- REMOVED HARD-NOSE. REMOVED ACCESSORIES ON FRONT OF ENGINE. REMOVED FRONT PULLEY MOUNTING BRACKET. LIFTED EN REMOVED FRONT ENGINE SUPPORT. DROPPED E PAN DOWN AND REMOVED SUCTION TUBE AND ENGINE DOWN ON STAND.  
 6543 5/14/20- REMOVED DIESEL. PARTICULATE F FROM TOP OF ENGINE TO ACCESS VALVE COVERS FRONT PEANUT COVER TO ACCESS CAM GEAR. SE TO TOP DEAD CYLINDER NO. 1 LINED UP TIMING ON GEAR. LOOSENED OVERHEAD. AND REMOVED STARTED REMOVING FRONT HOUSING BOLTS.  
 6543 5/15/20- REMOVED FRONT COVER AND FRC TRAIN. REMOVED BACKING PLATE. STARTED CLEAN GASKET MATERIAL OFF.  
 6543 5/18/20- FINISHED CLEANING. GASKET MAT OFF PLATE AND FRONT HOUSING. CLEANED CON UP. INSTALLED GASKETS. INSTALLED PLATE AND INSTALLED CAM GEAR.  
 6387 5-11-20 TORQUE BOLTS FOR FRONT COVER FRONT MAIN SEAL. TIGHTEN OVERHEAD TO SPEC INSTALL VALVE COVERS WITH NEW SEALS. TORC SPEC. INSTALL CEM. START TO HOOK UP CEM. IN FRONT ENGINE SUPPORT.  
 6543 5/19/20- CLEANED GASKET OFF OF BOTTOI BLOCK. CLEANED OIL PAN AND CLEANED UP MOI SURFACE. INSTALLED GASKET TO OIL PAN AND P MACHINE. INSTALLED SUMP. THEN INSTALLED P FOLLOWED TORQUE PROCEDURE. INSTALLED CR SENSOR. CLEANED BORES FOR HARDNOSE MOUR. INSTALLED NEW BEARING IN LEFT SIDE OF HARE. INSTALLED HARDNOSE TO MACHINE. INSTALLED MOUNTING PINS.  
 6387 5-19-20 FINISHED HOOKING UP CEM. INSTA ACCESSORY DRIVE MOUNTING BRACKET. INSTALL ALTERNATOR AND AC COMPRESSOR. INSTALLED I INSTALLED BELT. SECURE ALL HARNESSES AND I THAT WERE REMOVED. INSTALL HARD NOSE. INS 4 PIN KEYPERS FOR HARD NOSE PINS. HOOK UP 7 HOSES GOING TO HARD NOSE REPLACING ALL O. INSTALL INTAKE TUBE.  
 6543 5/20/20- INSTALLED HOOD. HOOKED UP HI AND LINES THAT CAME OFF WITH HOOD. CHANGE COOLANT HOSE. FILLED HYD. COOLANT. AND EN OIL. CHANGED FUEL FILTER. FILTER WAS LEAKIN OF SEAL. INSTALLED ENGINE PANELS. RAN MACH-CHECK FOR LEAKS. NO LEAKS FOUND. INSTALLE PANS.

662 CUSTOMER COMPLAINT:  
 STARTER NOSE CONE WAS LEAKING FLUID  
 CAUSE OF FAILURE:  
 GASKET FAILED/ COLLAPSED  
 CONTINGENT DAMAGE:  
 OIL DRIPPING FROM NOSE CONE OF STARTER  
 COMPLICATIONS:  
 NONE  
 CORRECTIONS:  
 6387 5-15-20 TAG OUT MACHINE. REMOVE CABLE TO STARTER. REMOVE STARTER MOUNTING BOLT STARTER AND STARTER NOSE CONE. INSTALL UPT NOSE CONE. DUE TO THE GASKET FAILURE. THE I HOUSING USES AN O-RING SEAL ON THE MOUNT. FLANGE. INSTALL STARTER ONTO MACHINE. INST CABLES ONTO STARTER. PAN MACHINE. CHECKED LEAKS. NONE FOUND.  
 404 CUSTOMER COMPLAINT:  
 TC HOSE LEAKING FLUID  
 CAUSE OF FAILURE:  
 RUBBED THROUGH/ LEAKING  
 CONTINGENT DAMAGE:

9132260	9132260	9132260	9132260	9132260	1453 - ELECTRIC STARTING MOTOR	662	9132260	9132260
9132260	9132260	9132260	9132260	9132260	3154 - TRANS LINES & HOSES	404	9132260	9132260

05	4.5	C	273 - RESEAL	06	2	C	010 - REMOVE & INSTALL
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NONE  
COMPLICATIONS:

NONE  
CORRECTIONS:

6387 5-18-20 REMOVE HOSE DUE TO LEAKING FL  
INSTALL NEW HOSE, REROUTED AND INSTALL IN  
TIE. ALL REPAIRS VERIFIED. TURNED HOSE IN FOR  
WARRANTY.

1,036 REPAIR PROCESS COMMENTS:  
6069 4/27/20 DISCONNECTED AND REMOVED BL  
PREPPED MACHINE FOR SHIPPING.

6306 5-21-20  
ON SITE LOCATE MACHINE AND BLADE. POSITION  
TO BLADE. CONNECT BLADE LINK TO FRONT TRL  
CONNECT PUSH ARM TRUNNIONS. CONNECT LIFT  
TRUNNIONS. CONNECT TILT LINES. TORQUE FAS  
SPEC. INFORM CUSTOMER AND RETURN MACHINI  
SERVICE.

12 PERFORM VALU GUARD INSPECTION

254

[REDACTED]

680

**Total \$17,379.06**

32,592 6003 4-01-20 ASSEMBLED NEW TRACKS, SANDED  
WHERE TRACK SHOE MATES TO RAIL. PUT TRACK  
UP SIDE DOWN ON RAIL AND SANDED THE BOTTL  
TRACK SHOES. FLIPPED RIGHT SIDE UP AND SAN  
AROUND BOLT HOLES. SCATTERED THE HARDWA  
BOLTS AND NUTS PER SHOE, AND OILED THE BC  
THE NUTS UP WITH 1/2 INCH CONDLESS IMPACT.  
TORQUED TO 479 FT LBS, AND THE 120 DEGREE  
AT 1000 FT LBS.

6003 3-2-20 PULLED THE SECOND RAIL UP ON TA  
SANDED THE RAIL WHERE THE TRACK SHOES SIT.  
THE TRACK SHOES UP ON THE RAIL UP SIDE DOWN  
SANDED THE BOTTOM OF THE TRACK SHOES. TH  
BACK OVER AND SANDED THE BOLT HOLE AREAS  
SCATTERED THE FOUR BOLTS AND NUTS PER TR  
AND OILED THE BOLTS. RAN NUTS UP WITH 1/2  
CONDLESS IMPACT. TORQUED THE BOLTS TO 479  
AND THE 120 DEGREE TURN WAS AT 1000 FT LBS  
SERIAL NUMBER FOR THE NEW RAILS ARE AS FOL  
PA 059 Y 10, PA 058 Y 25.

**Total \$32,592.20**

1,760 CUSTOMER COMPLAINT:  
ACTIVE EMISSION FAULT E1389

CAUSE OF FAILURE:  
AFTERTREATMENT INLET NOX SENSOR FAILED  
RESULTANT DAMAGE:

NONE

REPAIR PROCESS COMMENTS:  
INSPECTED MACHINE. CONNECTED WITH ET FOU  
ACTIVE FAULTS 3655-1.2, E1410, AND E1389. 3655  
CODE IS FOR INLET NOX SENSOR FAILURE WHICH  
CAUSE E1410. REMOVED THE INLET NOX SENSOR  
THE NOX SENSORS ARE THE OLD PART NUMBERS  
INSTALLED THE UPDATED INLET AND OUTLET NK  
AS A PAIR. PERFORMED 3 CONSECUTIVE AFTERT  
FUNCTIONAL TESTS ALL PASSED AND ACTIVE FAU  
CLEARED. CLEARED LOGGED FAULT HISTORY. PRI  
RESOLVED.

RETURN UNUSED PARTS AND COMPLETE REPORT.  
E1410 (2)  
INVALID AFTERTREATMENT #1 SCR CONVERSION  
EFFICIENCY

519 CUSTOMER COMPLAINT:

ACTIVE FAULT 2357-A

9132260 9132260 9132260

6060 - BLADE

07 7 C 010 - REMOVE & INSTALL

9139490

7583 - INSPECTION

AA 0.5 C 540 - PERFORM

7000 - MACHINE

B1 1.5 C 056 - TRAVEL TO/FROM

7000 - MACHINE

B2 0 C 052 - TRANSPORT

WO No ~~155407~~ (ACT: I) Ticket No ~~155407~~ SMU: 70724 Apr 01, 2020

01 11 C 511 - REPLACE WITH NEW

4150 - UNDERCARRIAGE

WO No ~~155407~~ (ACT: I) Ticket No ~~155407~~ (Mar 25, 2020) SMU: 7071H Mar 30, 2020

01 2.5 C 035 - TROUBLESHOOT

1080 - AFTERTREATMENT SYSTEM

9132260 9132260 9132260

1760

7309 - HEATER & AIR CONDITIONER

02 3 C 023 - REPAIR

9132260

9132260

9132260

9132260

CAUSE OF FAILURE: EVAPORATOR TEMPERATURE SENSOR FAILED- IN SHORT RESULTANT DAMAGE: NONE  
 NONE  
 COMPLICATIONS: THE TINWARE PANEL OVER THE HVAC BOX WAS WITH HEX ALLEN SOCKET HEAD BOLTS. THE BOX SEIZED AND THE HEX SOCKET HEAD STRIPPED OFF TO DRILL OFF BOLT HEADS AND EXTRACT BOLT. REPAIR PROCESS COMMENTS: TROUBLESHOOT ACTIVE FAULT 2357-4 (AIR CONDIT) EVAPORATOR COIL TEMPERATURE SENSOR: VOLT NORMAL. OPENED UP BATTERY COMPARTMENT TO ACCESS HVAC BOX. REMOVED PANEL OVER TOP OF BOX. TWO OF THE HEX ALLEN HEAD SOCKET BOLTS STRIPPED OUT. DRILLED OFF BOLT HEADS TO REMOVE PANEL. OPENED UP HVAC CASE TO ACCESS SENSOR. DISCONNECTED THE SENSOR WIRING AND THE FAN CHANGED FROM VOLTAGE BELOW NORMAL TO 120V NORMAL. THE SENSOR HAS FAILED AND IS SHORT INTERNALLY. ORDERED REPLACEMENT SENSOR. TO/FROM HILLSBORO STORE FOR PARTS. INSTALLED SENSOR AND TESTED. GOOD. REASSEMBLED HVAC EXTRACT BOLTS FROM THE TINWARE PANEL. REI PANEL WITH NEW HEX SOCKET HEAD BOLTS. BL BATTERY BOX COMPARTMENT. CLEANED LOGGEI HISTORY AND TESTED HVAC FUNCTIONS. GOOD. EVERYTHING WORKING PROPERLY. INFORMED CLIENT REPAIR AND RETURN MACHINE TO SERVICE.

338

7000 - MACHINE

056 - TRAVEL TO/FROM

2 C

B1

WO No ~~144652~~ (ACT: I) Ticket No 144652 (Feb 18, 2020) - SMU: 7069H Feb 18, 2020  
 02 26.5 C 510 - REPLACE ~~6065 - PUSH ARM BRACKET(S)~~

5,489 CUSTOMER COMPLAINT:PUSH ARM BEARINGS W/ CAUSE OF FAILURE: WORK WEAR CONTINGENT DAMAGE: NONE  
 NONE  
 COMPLICATIONS: NONE  
 CORRECTIONS: LAY OUT WITNESS MARKS FOR I.C AIR ARC BEARING OFF. CLEAN & BUILD UP SCARS SQUARE OFF PUSH ARMS 90 DEGREES. CLEAN PA NEW BEARINGS. FIT & TACK IN PLACE PER WITNE MARKS. PRE HEAT BEARINGS & WELD UP. BLEND PAINT.  
 REPLACE RH/LH PUSH ARM MOUNTING BEARING 1J-6740.

1,250

7000 - MACHINE

052 - TRANSPORT

0 C

B1

WO No ~~144652~~ (ACT: I) Ticket No 144652 (Jan 29, 2020) - SMU: 7069H Feb 27, 2020  
 01 3.5 C 035 - TROUBLESHOOT ~~6156 - BLADE STABILIZER~~

452 CUSTOMER COMPLAINT: STABILIZER BAR RUBBING AGAINST GRILL.  
 CAUSE OF FAILURE: TRUNNION MOUNT PLATE W LOCATION.  
 CONTINGENT DAMAGE: BOLT HEAD HIT GRILL, SI SPOT.  
 COMPLICATIONS: NONE

1,250

6156 - BLADE STABILIZER

001 - REPAIR FOR WARRANTY

48.5 C

02

6,370 CUSTOMER COMPLAINT: STABILIZER BAR HITTING NOSE GRILL.  
 CORRECTIONS: RUN TRACTOR & MOVE BLADE & T PICTURES FOR SERVICE REPORT.

1,250

6156 - BLADE STABILIZER

001 - REPAIR FOR WARRANTY

48.5 C

02

**Total: \$2,617.29**

**Total: \$6,730.00**

REMOVE LIFT CYLINDER CAPS, BACK MACHINE ON CUT TRUNNION MOUNT PLATE OFF, CUT MOUNTING SUPPORTS PER PRINT, TACK NEW PLATE & WELD ARC TRUNNION OFF OLD PLATE, GRIND & SHAPE PLATE, PREHEAT & WELD UP PER PRINT, CLEAN & PAINT, CLEAN ALL TRUNNION HARDWARE, INSTALL STABILIZER ON BLADE, DRIVE MACHINE INTO BL ASSEMBLY, SHIM & TORQUE TRUNNIONS PER (REHS2312-08), CLEAN & INSTALL HOSES TO TR CYLINDER WITH NEW O RINGS, RUN & CHECK FC CLEARANCES (SEE PICTURES), STEAM OFF OIL RES ON AFFECTED AREAS.

Total: \$6,821.17

WO No 1516108 (ACT: I) Ticket No 1133050 (Nov 11, 2019) - SMU: 7062H Nov 11, 2019  
 01 4 C 510 - REPLACE 4155 - SPROCKET SEGMENT

AA 0.5 C 540 - PERFORM 9016 - VALU-GARD INSPECTION  
 B1 0.5 C 056 - TRAVEL TO/FROM 7000 - MACHINE

WO No 1516108 (ACT: I) Ticket No 1133051 (Oct 30, 2019) - SMU: 6808H Oct 31, 2019  
 01 10.5 C 035 - TROUBLESHOOT 1395 - ENGINE COOLANT

9132260 9132260 9132260 9132260

9159490

Total: \$2,708.07

2,679 CUSTOMER COMPLAINT:  
 REPLACE SPROCKET SEGMENTS  
 CORRECTIONS:  
 TOOK BOAT TO ISLAND, SPROCKET SEGMENTS W  
 OUT AND TIPS WERE BREAKING OFF, REMOVED S  
 SEGMENT, CLEANED MOUNTING SURFACE, INST  
 SPROCKET SEGMENT USING NEW BOLTS, TOROL  
 SPEC, MOVED MACHINE TO GAIN ACCESS TO NEXT  
 SEGMENT, REPEATED PROCESS UNTIL ALL SPROCK  
 SEGMENTS ON BOTH SIDES WERE REPLACED, TC  
 BACK TO SHORE.

17 PERFORM FREE PETERSON VALU-GARD INSPECTIC  
 84 JOBSITE

5,144 USING COOLANT BUT NO OBVIOUS SIGN OF A LE  
 CUSTOMER COMPLAINT:  
 MACHINE WAS USING COOLANT BUT COULD NOT  
 EXTERNAL LEAK  
 CAUSE:  
 MRS COOLER LEAKING INTERNALLY  
 CONTINGENT DAMAGE:  
 MACHINE WAS USING COOLANT  
 COMPLICATIONS:  
 MACHINE WAS LOCATED ON AN ISLAND AND HAD  
 BOAT TO GET TO IT  
 CORRECTIONS:  
 LOADED UP TOOLS AND PARTS AND TOOK BOAT  
 WHERE MACHINE WAS LOCATED, INSPECTED ENK  
 LEAKS, FOUND WHERE COOLANT WAS WEeping  
 EXHAUST OUTLET OF MRS COOLER, REMOVED SIE  
 REMOVED CLAMP FROM MRS EXHAUST OUTLET, F  
 COOLER WAS COOLANT IN EXHAUST SIDE, DRAIN  
 COOLANT, REMOVED WATER PIPES FROM MRS CO  
 REMOVED CLAMPS AND BELLOW, REMOVED CL  
 COOLER, REMOVED SUPPORT BRACKET, INSTALLE  
 PLATE, INSTALLED NEW MRS COOLE  
 PLATE, INSTALLED CLAMPS AND TORQUED TO SP  
 UPDATED WATER LINES, FILLED ENGINE WITH CI  
 AN ENGINE AND CHECKED FOR LEAKS, NO LEAK  
 RAN FOR SYSTEM TEST IN ET, TEST PASSED,  
 REINSTALLED SIDE PANELS, TRAVELED BACK TO :  
 AND PUT AWAY TOOLS.  
 P553504

9016 - VALU-GARD INSPECTION

9159490

Total: \$3,194.46

WO No 1516108 (ACT: I) Ticket No 1136176 (Aug 15, 2019) - SMU: 6082H Aug 21, 2019  
 01 6.5 C 035 - TROUBLESHOOT 108U - AFTERTREATMENT SYSTEM

9132260 9132260 9132260 9132260

1,494 COMPLAINT: CHECK ENGINE LIGHT AND ENGINE V  
 REGEN.  
 CAUSE: FAILED AFD AIR CONTROL VALVE.  
 CONTINGENT DAMAGE: ENGINE WILL NOT REGEN  
 COMPLICATIONS: MACHINE IS ON A ISLAND AND I  
 EXTRA TIME TO TRAVEL TOO.  
 CORRECTIONS: HOOKED UP ET FOUND FAULTS FC  
 CONTROL VALVE CURRENT LOW AND AFD COF  
 PRESSURE VOLTAGE BELOW NORMAL. TROUBLES  
 FOUND AN INTERNAL FAILURE WITH THE AIR CON

VALVE, AND INTERNAL FAILURE OF THE AIR PRESSURE SENSOR. REPLACED THE AIR CONTROL AND AIR CONTROL. PRESSURE SENSOR. PERFORMED REGEN. ALL OKAY

827 COMPLAINT: ENGINE WONT COMPLETE A REGEN CAUSE: WIRING HARNESS RUBBED THROUGH. CONTINGENT DAMAGE: NONE.  
CORRECTIONS: NONE.  
TO THE ARO AIR CONTROL. VALVE DURING THE RE AFTER AIR CONTROL VALVE REPLACEMENT. TRACI AND FOUND 3 WIRES RUBBED THROUGH. MADE WIRING. PERFORMED FULL REGEN WITH NO ISSI  
15 PERFORM FREE PETERSON VALU-GARD INSPECTIK  
336 TONGUE POINT

Total: \$2,472.48

233 CUSTOMER COMPLAINT: PERFORM PB3051 CAUSE OF FAILURE: FACTORY REQUEST  
CONTINGENT DAMAGE: PERFORMED BEFORE FAILURE. CONNECTED E.T. AND INSTALLED SOFTWARE.

233 CUSTOMER COMPLAINT: REPAIR OIL LEAK AT VALVE COVER.  
CAUSE OF FAILURE: LOOSE BOLTS ON VALVE COVER.  
CONTINGENT DAMAGE: LOSS OF OIL.  
COMPLICATIONS:  
CORRECTIONS: CLEANED OFF VALVE COVER. BEAM AND FOUND 3 BOLTS TO BE LOOSE ON VALVE COVER. TIGHTENED BOLT TO CORRECT TORQUE AND INS EOL.

213

Total: \$678.00

939 CUSTOMER COMPLAINT: TORQUE CONVERTER TEMPERATURE SENSOR FAULTY  
CAUSE OF FAILURE: DRIVELINE CAUGHT HARNESS TO SENSOR AND PLUG OFF SENSOR AND END OFF OF HARNESS.  
RESULTANT DAMAGE:  
REPAIR PROCESS COMMENTS:  
REMOVED FLOOR PLATE AND FOUND WIRES MISSING. REPLACED SENSOR WITH NEW AND INS NEW SOCKETS AND PLUG ON HARNESS. RAN AND OPERATION AND CLEARED LOGGED FAULTS. INST FLOOR PLATES.  
POSSIBLE WARRANTY BUT  
CODE 826 FOR TORQUE OIL TEMP SENSOR

168

Total: \$1,166.76

2,915 CUSTOMER COMPLAINT: MACHINE WAS LOGGING CODE FOR LOW COOLANT. CAUSE OF FAILURE: OPEN IN SENSOR WIRING HARNESS  
RESULTANT DAMAGE:  
COOLANT PRESSURE SENSOR WAS NOT RECEIVING SUPPLY VOLTAGE  
REPAIR PROCESS COMMENTS:  
MACHINE WAS WORKING OUT ON AN ISLAND. TO ISLAND. RAN MACHINE AND MONITORED COOLANT PRESSURE. PRESSURE WAS FLUCTUATING AND HAD LOW AND HIGH LOGS ON COOLANT PRESSURE. REMOVED AND INSTALLED NEW SENSOR. PRESSURE STILL FLUCTUATING. INSTALLED NEW ATMOSPHERIC PRESSURE SENSOR. COOLANT PRESSURE STILL

1408 - WIRING HARNESS

9132260

9132260

9132260

9016 - VALU-GARD INSPECTION  
7000 - MACHINE

9132260

9159490

9132260

7751 - PROO IMPROVE PROG (PIP)  
SMU: 5966H Sep 22, 2019

9132260

9132260

9132260

1107 - VALVE COVER

9132260

9132260

9132260

7000 - MACHINE

9132260

9132260

9132260

3101 - TORQUE CONVERTER  
SMU: 5738H Jul 19, 2019

9132260

9132260

9132260

7000 - MACHINE

9132260

9132260

9132260

1000 - ENGINE  
SMU: 5656H Jul 30, 2019

9132260

9132260

9132260

FLUCTUATING, CONNECTED MECHANICAL GAUGE COOLING SYSTEM, MONITORED PRESSURE GAUGE RUNNING ENGINE, MECHANICAL PRESSURE GAUGE READING STEADY, INSPECTED WIRING TO COOLANT PRESSURE SENSOR, FOUND SMALL AREA ON WIRING HAD EXPOSED WIRE, REPAIRED WIRE BUT COOLANT PRESSURE WAS STILL FLUCTUATING, CHECKED SI VOLTAGE AT SENSOR, VOLTAGE RANGED FROM 4.1 TO 4.8 VOLTS, CHECKED SIGNAL VOLTAGE, VOLTAGE FLUCTUATING AS ENGINE WAS AT IDLE, TRACED 1 ON SCHEMATIC, FOUND THAT AFTER FUEL FILTER PRESSURE SENSOR USED SAME SUPPLY VOLTAGE CHECKED FOR POWER AT FUEL PRESSURE SENSOR VOLTAGE WAS AT 4.35 VOLTS, DETERMINED THAT WAS A BAD WIRE IN HARNESS, ORDERED NEW HARNESS, REMOVED OLD HARNESS, INSTALLED NEW HARNESS, CHECKED SUPPLY VOLTAGE AT COOLANT PRESSURE SENSOR, VOLTAGE WAS AT 4.95 VOLTS, MONITORED COOLANT PRESSURE IN CAT ET, COOLANT PRESSURE STAYING STEADY, CLEARED LOGGED CODES, LOW COOLANT PRESSURE

0 PERFORM FREE PETERSON CAT VALU-GUARD INSP

9159490 521  
Total: \$3,436.16

9016 - VALU-GUARD INSPECTION  
7000 - MACHINE

540 - PERFORM  
056 - TRAVEL TO/FROM

WO No 55744 (ACT: 1) Ticket No 11000006 (Jun 20, 2019) SMU: 55744 Jun 25, 2019

01 5 C 035 - TROUBLESHOOT

1000 - ENGINE

9132260

9132260

9132260

873 CUSTOMER COMPLAINT: MACHINE HAD CODE FOR LOW COOLANT PRESSURE CAUSE OF FAILURE: COOLANT PRESSURE SWITCH READING INCORRECT PRESSURE

RESULTANT DAMAGE: MACHINE HAD CODE FOR LOW COOLANT PRESSURE DERATED

REPAIR PROCESS COMMENTS: MACHINE WAS ON ISLAND, LOADED TOOLS ON BI TRANSPORTED TO MACHINE, CONNECTED CAT ET, HAD CODE FOR LOW COOLANT PRESSURE E2112 (E2112 (E), CHECKED COOLANT LEVEL, COOLANT V PROPER LEVEL, INSPECTED COOLANT HOSES, HOSE ROUTING WAS CORRECT AND NOT LEAKING, INSPI EXPANSION TANK AND SHUNT LINE, TANK AND LI GOOD AND FREE OF OBSTRUCTIONS, INSTALLED MECHANICAL GAUGE IN WATER JACKET, RAN ENGI COMPARED GAUGE TO READING IN ET, GAUGE RE DIFFERENT FROM ET, REMOVED AND INSTALLED I COOLANT PRESSURE SENSOR, RAN ENGINE AND C PRESSURE, GAUGE AND SENSOR NOW READING V SPEC, COOLANT PRESSURE WAS STEADY AND NOT FLUCTUATING, CLEARED LOGGED CODES, LOADEI ON BOAT TO BE TRANSPORTED BACK TO SHORE

0 PERFORM FREE PETERSON CAT VALU-GUARD INSP

9159490 521  
Total: \$873.28

9016 - VALU-GUARD INSPECTION  
7000 - MACHINE

540 - PERFORM  
070 - CLEAN

WO No 55744 (ACT: 1) Ticket No 11000006 (Feb 05, 2019) SMU: 55744 Mar 19, 2019

01 6 C 070 - CLEAN

4150 - UNDERCARRIAGE

02 64.5 C 511 - REPLACE WITH NEW

4150 - UNDERCARRIAGE

80,349 CUSTOMER COMPLAINT: UPDATE SYSTEM ONE TO HEAVY DUTY

REPAIR PROCESS COMMENTS: EXISTING SYSTEM ONE UNDER CARRIAGE REMOVE HEAVY DUTY UNDER CARRIAGE INSTALLED FOLLC MEDIA NUMBER #M0069972-02

CONVERT COMPLETE UC FROM SYSTEM 1 TO HD >

582 INCLUDES BROKEN BOLT REMOVAL

2,000 REPAIR PROCESS COMMENTS: ASSEMBLED TRACK USING NEW RAILS AND NEW SHOES, AND NEW HARDWARE. THE SERIAL NUMB THE NEW RAILS ARE AS FOLLOWS: PN 269 Y 08 / 272 Y 02. THE TORQUE SETTINGS WAS AT 479 FT L WHERE SIX TRACKS BOLT PART NUMBER 6V-1723 NUTS LEFT OVER PART NUMBER 7G-6442. RETURN THESE PARTS. BOTH TRACKS ARE MARKED PORT C

03 2 C 986 - ADDITIONAL CHARGES

4150 - UNDERCARRIAGE  
4171 - TRACK LINK AS (SEALED)

04 16 C 016 - ASSEMBLE

PORTLAND, WITH WORK ORDER NUMBER AND RI  
AND TIED. THEY ARE IN THE LONGVIEW SPUTTLE  
1.772 EXTRA PARTS FOR CARRIER ROLLERS  
1.527 CUSTOMER COMPLAINT:  
SPACER COMING OUT OF THE FRONT LEFT IDLER  
CAUSE OF FAILURE:  
TWO BROKEN BOLTS ON THE RETAINING CAPS F  
LEFT FRONT IDLER  
RESULTANT DAMAGE:  
BUSHINGS WALKED OUT  
REPAIR PROCESS COMMENTS:  
INSPECTED MACHINE, SLACKED TRACKS OFF. REV  
RETAINING CAPS, FOUND TWO BROKEN BOLTS. S  
TRACK AND REMOVED IDLER TO GAIN ACCESS FOR  
EXTRACTION. DRILLED AND EXTRACTED THE BRO  
BOLTS, AND INSTALLED IDLER WITH NEW CAPS,  
BUSHINGS, AND BOLTS, TORQUED THEM TO SPE  
INSTALLED THE TRACK, TENSIONED TRACKS.  
LEFT FRONT IDLER BUSHING IS WALKING OUT  
UNDERCARRIAGE WARRANTY EXPIRES AT 4000 HR  
\*\*\*\*\*SYSTEM ONE REPAIR\*\*\*\*\*

2.370 CUSTOMER COMPLAINT:  
REMOVE AND REPLACE BROKEN TRACK LINK  
RIGHTHAND BOX LINK BUSHING BROKEN  
REPAIR PROCESS COMMENTS:  
11/7/18 (RIGHT TRACK ASSEMBLY) REMOVED THE  
FROM AROUND THE BROKEN LINK AND SEPARATE  
TRACK ASSEMBLY, PRESSED THE BAD BOX LINK C  
CUSTOMER SUPPLIED A SECTION OF USED TRACK  
REMOVED THE BOX LINK FROM THE USED TRACK  
ALONG TIME TO REMOVE THE BOX LINK FROM TI  
TRACK ASSEMBLY DUE TO THE LINKS WERE GALL  
THE BOX LINK ONCE THE BOX LINK WAS REMOVI  
THE USED TRACK ASSEMBLY, INSTALLED IT ONTC  
MACHINE'S TRACK ASSEMBLY, CONNECTED THE T  
INSTALLED THE SHOES. ALL THE SHOE BOLTS AN  
MASTER LINK BOLTS WERE TORQUED AND TORQ  
TORQUE TURNED, ADJUSTED THE TRACK AND BA  
MACHINE AFTER THE REPAIR  
11/8/18 MADE REPAIRS TO TOOLING, CLEANED U  
TOOLING AND PUT AWAY TOOLING.  
ONE BAD TRACK LINK, CUST HAS LINK BRING NU  
BOLTS.  
\*\*\*\*\*SYSTEM ONE REPAIR\*\*\*\*\*

-17.366  
Total: \$71,566.12

12.030 REPAIR PROCESS COMMENTS:  
PERFORMED 5000 HR DPF SERVICE, PERFORMED :  
MACHINE SERVICE.  
REPAIR PROCESS COMMENTS:  
PERFORMED 5000 HR DPF SERVICE, PERFORMED :  
MACHINE SERVICE, FILTERS REPLACED: ENGINE O  
FILTER, FUEL FILTERS, HYDRAULIC FILTER, POWE  
TRAIN FILTER, AIR FILTERS, OILS CHANGED: ENGI  
OIL, HYDRAULIC OIL, CUSTOMER SUPPLIED BIO  
OIL, POWERTRAIN OIL, FINALS OIL, AND WINCH B  
OIL, VALVE ADJUSTMENT COMPLETED, AHD HEAD  
REPLACED, NEW SPARK PLUG, HARDWARE FOR AF  
DPF INJECTOR REPLACED AND DPF FILTER REPLAC  
DPF BURN OUT AND RESET COMPLETED.  
2.958 CUSTOMER COMPLAINT:  
CUTTING EDGES WORN  
REPAIR PROCESS COMMENTS:  
REMOVED WORN CUTTING EDGES AND REMOVED  
PREPARED SURFACES, REPLACED EDGES AND INST  
WITH NEW HARDWARE.

5.548 REPAIR PROCESS COMMENTS:  
BLADE CRIBBED AND SUPPORTED FOR REMOVAL  
WERE WELDED ON FOR STRENGTH DUE TO WEIG  
BLADE, TILT CYLINDERS REMOVED, PUSH ARMS R  
HYDRAULIC LINES DISCONNECTED, WITH A LARGE  
MACHINE AND RATED CHAINS BLADE WAS MOVED  
FLIPPED FOR VARIOUS WORK, PUSH ARMS INSTAL

4150 - UNDERCARRIAGE  
4159 - IDLER/IDLER WHEEL

4171 - TRACK LINK AS (SEALED)

7755 - PROD SUPPORT PROG (PSP)

9301 - 5000 HOUR DPF SERVICE  
SM U: 5152H Apr 08, 2019

6801 - CUTTING EDGE

6050 - BULLDOZER

05 0 C 984 - ADDITIONAL PARTS FOR  
06 8.5 C 990 - DIAGNOSE & REPAIR

07 16.5 C 510 - REPLACE

08 0 C 169 - PROVIDE

01 45 C 540 - PERFORM

02 6.5 C 510 - REPLACE

03 13.5 C 017 - DISASSEMBLE & ASSEMBLE

WITH NEW PINS, TILT CYLINDERS INSTALLED W/ PINS, HYDRAULIC LINES INSTALLED WITH NEW ( BULLDOZER MOUNTED UP TO MACHINE NEW TR AND HARDWARE USED AS WELL AS SHIMMED. REPLACE NEEDED BUSHINGS AND PINS.

04	3.5	C	510 - REPLACE	6069 - BULLDOZER TRUNNION	3,839	CUSTOMER COMPLAINT: WORN TRUNNION REPAIR PROCESS COMMENTS: BULLDOZER TRUNNION REPLACED WITH NEW ON HARDWARE USED. BOLTS TORQUE AND MOUNTING CAPS FOR PUSH ARM AND RECONDITION FRONT BLADE MOUNTING BL BEARINGS AND BUSHINGS BAD REPAIR PROCESS COMMENTS: NEW BEARINGS AND BUSHINGS PRESSED IN. BO PUSH ARMS AND BLADE MACHINED.
05	24.5	C	023 - REPAIR	5104 - TILT CYLINDER	4,518	CUSTOMER COMPLAINT: INSPECT FOR MOVEMENT REPAIR PROCESS COMMENTS: NO MOVEMENT FOUND. PIVOT YOKES AND CYLINDER MOUNTS AND DIAGONAL BRACE
06	2	C	040 - INSPECT	5102 - LIFT/HOIST CYLINDER	250	CUSTOMER COMPLAINT: SEAT BELT OUT OF DATE REPAIR PROCESS COMMENTS: NEW SEAT BELT INSTALLED.
07	2	C	510 - REPLACE	7377 - SEAT BELT	399	CUSTOMER COMPLAINT: PUSH ARM CYLINDER BORES LOOSE CAUSE OF FAILURE: USE RESULTANT DAMAGE: OVERSIZED BORES
08	60.5	C	122 - BUILD UP AND MACHINE	6082 - BULLDOZER LINKAGE	4,203	CUSTOMER COMPLAINT: REMOVED BEARINGS ON MOUNTING ENDS OF PL INSTALLED NEW BEARINGS BUILT UP TILT CYLIN BORES SQUARED AND LEVELLED TO MOUNTING B MACHINED TO 2.752 ON THE BACK OF THE BLAD. BUILT UP ALL PUSH ARM MOUNTING BORES AND TO 2.738 AND BUILT UP TILT CYLINDER MOUNTING BORES AND MACHINED TO 2.747 4 BORES ON BACK OF DOZER BLADE
10	35.5	C	062 - WELD	6060 - BLADE	4,506	CUSTOMER COMPLAINT: CUSTOMER WANTED TO FINISH PLATING THE FACE BLADE AND ADD WEAR BARS ON THE BOTTOM SIDE PLATE CAUSE OF FAILURE: N/A RESULTANT DAMAGE: WEARING THE FACE OF THE BLADE AND BOTTOM THE SIDE PLATE REPAIR PROCESS COMMENTS: PREPPED SURFACES TO BE WELDED MADE TEMPI BLADE FAB SHOP BURNT AND FORMED FACE PLJ INSTALLED FACE PLATES AND WELDED ALSO ADI WEAR BARS ON BOTTOM EDGE OF SIDE PLATE AT WEAR BARS ON FACE OF SIDE PLATE REFACE BLADE AND ADD WEAR MATERIAL AT COR
11	11	C	938 - BURN	6060 - BLADE	1,250	6145 BURNED BLADE FACE PLATES AND FORMED
12	2.5	C	510 - REPLACE	4191 - DIAGONAL BRACE	607	DIAGONAL BRACE TRUNNION BALL ONT HE BACK BLADE
13	8	C	540 - PERFORM	9224 - INSPECTION	2,544	
AA	0	C	540 - PERFORM	9016 - VALU-GARD INSPECTION	0	PERFORM FREE PETERSON CAT VALU-GUARD INSP
					9159490	
					<b>Total: \$42,652.83</b>	

WO No [REDACTED] (ACT: I) Ticket No. [REDACTED] (Jan 11, 2019) - [REDACTED] SMU: 48974 Jan 25, 2019  
 B1 2 C 056 - TRAVEL TO/FROM [REDACTED] E  
 336 [REDACTED]  
**Total: \$336.00**

WO No [REDACTED] (ACT: I) Ticket No. [REDACTED] (Nov 15, 2018) - [REDACTED] SMU: 50234 Jan 30, 2019

3.314 CUSTOMER COMPLAINT:  
 PERFORM P22846  
 CAUSE OF FAILURE:  
 NONE  
 REPAIR PROCESS COMMENTS:  
 PERFORMED P22846 AS OBTAINED IN THE SERIAL  
 LETTER. THE MACHINE HAD A WRENCH THAT HAD  
 REMOVED AND INSTALLED.

113  
 185  
**Total: \$3,612.24**

15 PERFORM FREE PETERSON CAT VALU-GARD INSPE  
 743

**Total: \$767.25**

3.132 CUSTOMER COMPLAINT:  
 REPAIR UNDERCARRIAGE  
 CAUSE OF FAILURE:  
 BUSHING BECAME LOOSE IN CARTRIDGE  
 RESULTANT DAMAGE:  
 BUSHING ON BOX LINK BROKE AND WAS MOVING  
 REPAIR PROCESS COMMENTS:  
 INSPECTED TRACK AND FOUND THAT CARTRIDGE  
 LINK WAS BROKEN ON RIGHT HAND TRACK. LOOSE  
 TRACK, POSITIONED TRACK TO BE SPLIT. REMOVE  
 TRACK PADS AROUND BROKEN LINK, USED TOOL  
 REMOVED OUTSIDE LINKS, REMOVED BROKEN BUSHING  
 CLEANED ALL MOUNTING SURFACES, INSTALLED  
 TO NEW BOX LINK SECTION, INSTALLED SIDE LINK  
 TO BOX LINK, INSTALLED TRACK PADS (USING NEW)  
 BOLTS, TORQUED BOLTS TO SPEC. TIGHTENED T  
 RAN MACHINE, READJUSTED TRACKS.  
 NOTE:  
 AFTER TRACK HARDWARE HAS BEEN RAN IN THE I  
 IS NEVER REUSABLE. WITH ALL THE DIRT  
 THAT GETS JAMMED IN THE THREADS.  
 THEY GET CHEWED UP WHEN YOU TAKE THEM A

2.029

CUSTOMER COMPLAINT:  
 TROUBLESHOOT TRANSMISSION OIL  
 REPAIR PROCESS COMMENTS:  
 CUSTOMER STATED THAT TRANSMISSION HAD A I  
 SAMPLE, DRAINED TRANSMISSION OIL, REMOVED  
 INSTALLED NEW FILTER. REMOVED SUCTION SCR  
 INSPECTED, SCREEN WAS CLEAN, REINSTALLED S  
 FILLED TRANSMISSION WITH NEW OIL. RAN MACI  
 CHECKED OIL LEVEL. OIL WAS A PROPER LEVEL. C  
 OPEN TRANSMISSION FILTER AND INSPECTED FOI  
 CONTAMINATION. FILTER WAS CLEAN.  
 PULL SCREENS/ CHANGE FILTER/ CHANGE OIL.  
 0 PERFORM FREE PETERSON CAT VALU-GARD INSPE  
 396

**Total: \$5,557.48**

2.352 CUSTOMER COMPLAINT:  
 PRODUCT LINK STOPPED REPORTING  
 CAUSE OF FAILURE:  
 INTERNAL FAILURE PROD LINK CONTROL  
 REPAIR PROCESS COMMENTS:  
 CONNECTED CAT ET TO MACHINE. FOUND THAT A  
 SOFTWARE WAS OUT OF DATE, UPDATED SOFTW  
 LATEST VERSIONS. PRODUCT LINK WOULD NOT L  
 SOFTWARE. REMOVED HEADLINER, FOUND THAT  
 LIGHT WAS BLINKING AND NOT MAKING A CONN  
 SATELLITE. ATTEMPTED TO PERFORM A COMMUN  
 CHECK. COMMUNICATION CHECK FAILED, ORDERE  
 PL631 RADIO. REMOVED OLD RADIO AND INSTALL  
 REMAN RADIO. CONNECTED TO MACHINE WITH ET  
 LIGHTS ON RADIO WERE SOLID. PERFORMED

7755 - PROD SUPPORT PROG (PSP)

7751 - PROD IMPROVE PROG (PIP)  
 7000 - MACHINE

SMU: 4776H Nov 06, 2018  
 9016 - VALU-GARD INSPECTION  
 7000 - MACHINE

SMU: 4075H Oct 26, 2018  
 4150 - UNDERCARRIAGE

3080 - TRANSMISSION OIL

9016 - VALU-GARD INSPECTION  
 7000 - MACHINE

SMU: 4075H Oct 26, 2018  
 7606 - PRODUCT LINK SYSTEM

01 15 C 540 - PERFORM

02 4.5 C 986 - ADDITIONAL CHARGES  
 B1 1 C 056 - TRAVEL TO/FROM

WO No 1514692 (ACT: 1) Ticket No 1056929 (Nov 05, 2018)  
 AA 0.5 C 540 - PERFORM  
 B1 4.5 C 056 - TRAVEL TO/FROM

WO No 1514692 (ACT: 1) Ticket No 1057147 (Oct 23, 2018)  
 01 16 C 023 - REPAIR

02 7.5 C 035 - TROUBLESHOOT

AA 0 C 540 - PERFORM  
 B1 2 C 056 - TRAVEL TO/FROM

WO No 1514692 (ACT: 1) Ticket No 1056921 (Oct 15, 2018)  
 01 9.5 C 023 - REPAIR



COMMUNICATION CHECK, RADIO WAS COMMUNICATED. CONTACTED PRODUCT LINK ADMINISTRATOR, DOWN LOADED PRODUCT STATUS WATCH, AND SERVICE DASHBOARD, SEN PRODUCT LINK ADMINISTRATOR, HE STATED THE RADIO WAS STILL NOT SHOWING UP. PRODUCT LINK ADMINISTRATOR CREATED A DSN, FOUND THAT I AND NEW SERIAL NUMBERS WERE IN THE SYSTEM. REMOVED OLD SERIAL NUMBER, PRODUCT LINK REPORTING PROPERLY.

390 PERFORM PB32846  
 16 PERFORM FREE PETERSON CAT VALU-GARD INSPE  
 330 ONLY CHARGED FOR 1 TRIP

Total: \$3,087.75

9157210 9157210 9157210  
 9159490 9159490 9159490

9332 - PRODUCT LINK PL542  
 9016 - VALU-GARD INSPECTION  
 7000 - MACHINE

WO No 1854282 (ACT: I) Ticket No 1854282 (Sep 12, 2018) SMU: 3777H Oct 24, 2018  
 01 0.5 C 591 - REPROGRAM 1901 - ECM

1807 - A/C COMPRESSOR

02 1.5 C 010 - REMOVE & INSTALL

9016 - VALU-GARD INSPECTION  
 7000 - MACHINE

AA 0 C 540 - PERFORM  
 B1 1.5 C 056 - TRAVEL TO/FROM

WO No 1942282 (ACT: I) Ticket No 1942282 (Jul 13, 2018) SMU: 2861H Jul 24, 2018  
 01 17 C 023 - REPAIR 4170 - TRACK ASSEMBLY

7000 - MACHINE

B1 4 C 056 - TRAVEL TO/FROM

WO No 2554744 (ACT: I) Ticket No 2554744 (May 21, 2018) SMU: 2554H May 25, 2018  
 01 21 C 990 - DIAGNOSE & REPAIR 4192 - BOGIE

68 CUSTOMER COMPLAINT:  
 SYNCHRONIZE ECM CLOCKS.  
 CAUSE OF FAILURE:  
 CLOCKS NOT THE SAME.  
 REPAIR PROCESS COMMENTS:  
 HOOKED UP ET AND SYNCHRONIZED ECM HOURS.  
 SYNC EDMS

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1807 - A/C COMPRESSOR

02 1.5 C 010 - REMOVE & INSTALL

9016 - VALU-GARD INSPECTION  
 7000 - MACHINE

AA 0 C 540 - PERFORM  
 B1 1.5 C 056 - TRAVEL TO/FROM

WO No 1942282 (ACT: I) Ticket No 1942282 (Jul 13, 2018) SMU: 2861H Jul 24, 2018  
 01 17 C 023 - REPAIR 4170 - TRACK ASSEMBLY

7000 - MACHINE

B1 4 C 056 - TRAVEL TO/FROM

WO No 2554744 (ACT: I) Ticket No 2554744 (May 21, 2018) SMU: 2554H May 25, 2018  
 01 21 C 990 - DIAGNOSE & REPAIR 4192 - BOGIE

310 CUSTOMER COMPLAINT:  
 A/C NOT WORKING.  
 CAUSE OF FAILURE:  
 PRESSURE SWITCH AT COMPRESSOR.  
 REPAIR PROCESS COMMENTS:  
 HOOKED UP GUAGES TO A/C. HAS CHARGE. DOES  
 ON. CHECKED FOR POWER TO COMPRESSOR. NO  
 CHECKED PRESSURE SWITCH BY COMPRESSOR. N  
 WORKING. NEW SWITCH WAS INSTALLED.

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1807 - A/C COMPRESSOR

02 1.5 C 010 - REMOVE & INSTALL

9016 - VALU-GARD INSPECTION  
 7000 - MACHINE

AA 0 C 540 - PERFORM  
 B1 1.5 C 056 - TRAVEL TO/FROM

WO No 1942282 (ACT: I) Ticket No 1942282 (Jul 13, 2018) SMU: 2861H Jul 24, 2018  
 01 17 C 023 - REPAIR 4170 - TRACK ASSEMBLY

7000 - MACHINE

B1 4 C 056 - TRAVEL TO/FROM

WO No 2554744 (ACT: I) Ticket No 2554744 (May 21, 2018) SMU: 2554H May 25, 2018  
 01 21 C 990 - DIAGNOSE & REPAIR 4192 - BOGIE

0 PERFORM FREE PETERSON CAT VALU-GARD INSPE  
 248

Total: \$625.42

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4170 - TRACK ASSEMBLY

01 17 C 023 - REPAIR 4170 - TRACK ASSEMBLY

CUSTOMER COMPLAINT:  
 REPAIR TRACK ASSEMBLY  
 CAUSE OF FAILURE:  
 PLUG FOR CARTRIDGE IN BOX LINK WAS MISSING  
 RESULTANT DAMAGE:  
 OIL LEAKED OUT OF CARTRIDGE CAUSING CARTRI  
 BREAK  
 REPAIR PROCESS COMMENTS:  
 TOOK BOAT TO ISLAND TO WHERE MACHINE WAS  
 INSPECTED TRACK AND FOUND THAT CARTRIDGE  
 LINK WAS BROKEN ON LEFT HAND TRACK. PLUG  
 CARTRIDGE WAS ALSO MISSING. LOOSENED TRAC  
 POSITIONED TRACK TO BE SPLIT. REMOVED TRAC  
 AROUND BROKEN LINK. BROKEN LINK WAS NEXT  
 MASTER LINK. SPLIT TRACK AT MASTER LINK. WA  
 FOR BOAT TO BRING TOOLING OUT TO ISLAND. I  
 TOOLING TO REMOVE OUTSIDE LINKS. BOLTED  
 LINK TOGETHER AND REMOVED MASTER LINK FR  
 BOX LINK. CLEANED ALL MOUNTING SURFACES.  
 INSTALLED MASTER LINK ON TO NEW BOX LINK.  
 INSTALLED SIDE LINKS ON TO BOX LINK. INSTAL  
 TRACK PADS USING NEW BOLTS. TORQUED BOLT  
 SPEC. TIGHTENED TRACKS. RAN MACHINE. REAR  
 TRACKS. LOADED TOOLS ON BOAT AND TRAVELEI  
 SHORE. LOADED TOOLS IN SERVICE TRUCK

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4170 - TRACK ASSEMBLY

01 17 C 023 - REPAIR 4170 - TRACK ASSEMBLY

Total: \$4,434.69

3,833 CUSTOMER COMPLAINT:  
 BOGIE PIN LEAKING ON LEFT SIDE OF MACHINE  
 CAUSE OF FAILURE:  
 2 BOGIE MINOR PINS AND 1 BOGIE MAJOR PIN LE  
 NONE  
 REPAIR PROCESS COMMENTS:  
 NONE

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4192 - BOGIE

01 21 C 990 - DIAGNOSE & REPAIR 4192 - BOGIE

5-23-18, ON SITE. CONSULTED CUSTOMER. CUSTOMER STATED THAT THEY FOUND ANOTHER BOGIE PIN AND INSPECTED MACHINE. FOUND 2 BOGIE MINOR LEAKING AND 1 BOGIE MAJOR PIN LEAKING. ORDERED PARTS TO REPLACE 2 MORE BOGIE PINS. BACKED UP ONTO BLOCK TO RAISE UP LEFT HAND SIDE C MACHINE. REMOVED BOTH TRACK ROLLERS FROM MINORS. REMOVED PIN CAP. REMOVED RUBBER FROM PIN. INSTALLED TOOLING TO REMOVE PIN. INSPECTED PIN BORES. INSTALLED INSTALLATION TOOLING. INSTALLED NEW PIN WITH ANTISEIZE. LEFT HAND BOGIE MAJOR RETAINING RING. AFTER REMOVING RETAINING PLATE. COULDN'T REMOVE CLEANED SITE.

5-24-18, ON SITE. INSTALLED TOOLING AND RAN REMOVE RETAINING PLATE. REMOVED RETAINING RUBBER OIL PLUGS. INSTALLED TOOLING. REMOVED PIN. CLEANED AND INSPECTED PIN BORES. INSTALLED TOOLING, AND NEW PIN WITH ANTI-SEIZE. REINSTALLED TRACK ROLLERS WITH ANTI-SEIZE. REINSTALLED TRACK ROLLERS WITH ANTI-SEIZE. TORQUED TO SPEC. SLACI RIGHTHAND TRACK. RAN LEFT TRACK TO GET SLACI REAR OF MACHINE. RAISED AND BLOODED UP MA WITH STAND. REMOVED TRACK ROLLERS FROM RI BOGIE MINORS. REMOVED PIN CAP. AND RUBBER PLUGS. INSTALLED TOOLING. REMOVED BOGIE PIN. CLEANED AND INSPECTED PIN BORES. INSTALLED TOOLING, AND NEW PIN WITH ANTISEIZE. INSTALLED TRACK ROLLERS WITH NEW BOLTS AND ANTI-SEIZE. TORQUED TO SPEC. LOWERED MACHINE TO GROUND. RAN MACHINE TO GET TRACK SLACK TO SIDE OF FINAL. ADJUSTED TRACK. CLEANED SITE. MACHINE AROUND YARD. CHECKED TRACK ADJUST ADJUSTED TRACK. CONSULTED CUSTOMER. BOGIE LEAKING OIL

15 PERFORM FREE PETERSON CAT VALU-GARD INSPECTION  
357

Total: \$4,294.73

2,043 CUSTOMER COMPLAINT: OIL MESS AROUND VIBRATION DAMPER. WELD SEAM ON DAMPER LEAKING. REPAIR PROCESS COMMENTS: VERIFIED THE COMPLAINT. THERE WAS OIL COLLECTED IN A CIRCLE AROUND THE VIBRATION DAMPER. IN A CIRCLE AROUND THE LEAK AND FOUND THAT WAS COMING FROM THE DAMPER. REMOVED THE DAMPER. INSPECTED THE FRONT MAIN CRANKSHAFT PULLEY. INSPECTED THE FRONT MAIN AND TORQUED THE BOLTS TO 200 FT.LBS. PAINTED AND TORQUED THE BOLTS TO 200 FT.LBS. PAINTED MOUNTING BOLTS AND TORQUED THEM TO 75 FT.LBS. INSTALLED THE SERPENTINE BELT. RAN THE MACHINE. THE REPAIR. NO FURTHER LEAKS WERE FOUND. SENT THE FAILED PART TO WARRANTY DEPARTMENT. TICKET #02694 LEAK AT DAMPNER

27 PERFORM FREE PETERSON CAT VALU-GARD INSPECTION  
162

Total: \$2,231.87

1,698 CUSTOMER COMPLAINT: OIL LEAKING NEAR TORQUE CONVERTER OUTPUT IMPLMENT PUMP OUTPUT SHAFT SEAL FAILED REPAIR PROCESS COMMENTS: ARRIVED ON SITE, INSPECTED MACHINE.

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WO No 1545288 (ACT: 1) Ticket No 167249 (May 07, 2018) - [REDACTED] SMU: 2353H May 14, 2018  
01 7 C 990 - DIAGNOSE & REPAIR

1205 - CRANKSHAFT DAMPER/PULLEY

AA 0.5 C 540 - PERFORM  
B1 2 C 056 - TRAVEL TO/FROM

9139490 9132260 9132260 9132260 9132260 9132260

WO No 1545288 (ACT: 1) Ticket No 927285 (Dec 22, 2017) - [REDACTED] SMU: 2347H Jan 05, 2018  
01 12 C 510 - REPLACE

AA 0.5 C 540 - PERFORM  
B1 1 C 056 - TRAVEL TO/FROM

5070 - PISTON PUMP

MIDDLE BELLY PAN LOWERED. INSPECTED FROM MACHINE FOUND HYDRAULIC OIL LEAK COMING AROUND OUTPUT SHAFT OF IMPLEMENT PUMP 5 PUMP DRIVESHAFT. THE LEAK FROM THE PUMP 5 ABOVE THE TORQUE CONVERTER OUTPUT AND LI DOWN ONTO THE TORQUE CONVERTER. REMOVE FROM CAB REMOVED FLOOR PLATE TO GAIN ACCESS IMPLEMENT PUMP. DISCONNECTED TWO HOSES OUT OF THE WAY. REMOVED TRANS PUMP DRIVE GUARDING. REMOVED PUMP DRIVESHAFT AND CI ASSEMBLY FROM IMPLEMENT PUMP. REMOVED THE OIL AND RETAINING PLATE ASSEMBLY BACK TO THE SHOP. HAD COMPONENT SHOP PRESS APART ASSEMBLY REPLACE SEALS AND REASSEMBLE. SEE SEGMENT RETURN TO MACHINE. REINSTALL OUTPUT SHAFT ASSEMBLY INTO PUMP WITH NEW SEALS. REINS DRIVE COUPLING AND SHAFT. REINSTALLED GUARDING. RECONNECTED HOSES. CLEANED OIL LIFE COMPRESSED AIR AND BRAKE CLEAN. RAN MACHINE WARMED UP TO TEMP. INSPECTED FOR ANY FURT LEAKS. NONE FOUND. REINSTALLED FLOOR PLATE FLOOR MAT. REINSTALLED BELLY PAN. INFORMED CUSTOMER HYDRAULIC TANK NEEDS A COUPLE G OIL ADDED. RETURNED MACHINE TO SERVICE. \*PUMP SERIAL # Z2 016 402 LEAK AT IMPLEMENT PUMP

59 CUSTOMER COMPLAINT: SHAFT SEAL LEAKING. CAUSE OF FAILURE: LIP SEAL LOST ITS CRUSH CAUSING IT TO TRANSFER REPAIR PROCESS COMMENTS: REMOVED BEARINGS FROM SHAFT AND REMOVED CARRIER. INSPECTED SHAFT SEAL SURFACE AND SEAL LOST CRUSH. REMOVED SEAL. CLEANED COMPONENTS. POLISHED SHAFT AND BUFFED W SURFACES. REASSEMBLED WITH NEW SEALS AND SNAP RING. REMOVE/INSTALL BEARINGS AND SHAFT SEAL. 0 PERFORM VALU-GUARD.

486  
Total: \$2,248.41

244 CUSTOMER COMPLAINT: AIR CONDITIONING NOT FUNCTIONING CAUSE OF FAILURE: BAD CONNECTION REPAIR PROCESS COMMENTS: DROVE TO MACHINE. PLUGGED IT INTO IT. FOUND STAT'S SECTION UNDER THE HVAC SUB MODE TH MONITORING CIRCUIT WAS OPEN. OPENED UP THE HAND SIDE ENGINE COMPARTMENT DOOR. UNPLUGGED THE CONNECTORS AND PLUGGED THEM BACK UNPLUGGING THE LOW PRESSURE SWITCH. THE CAME APART. THE LOCK TAB AND SEAL STAYED IN THE SWITCH. FOUND A SMALL BURNT MARK ON THE SWITCH. FOUND THE LOCK TAB AND SEAL. INSTALLED CONNECTOR INTO THE SWITCH. HOOKED UP THE FOUND THE MONITORING CIRCUIT CLOSED. THE STARTED TO WORK. HOOKED UP AIR CONDITIONING GAUGES TO THE PORTS. THE PRESSURES WERE F DISCONNECTED THE GAUGES. TURNED THE A.C. ON AND OFF SEVERAL TIMES. THE SYSTEM ALWAYS TURNED ON AND ALL IS GOOD. T/S A/C FOR NOT BLOWING COLD

17  
80  
Total: \$340.75

883 CUSTOMER COMPLAINT: RIGHT SIDE FINAL DRIVE OIL SAMPLE SHOWED H LEVELS.

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7555 - SEALS & GASKETS

9139490

9016 - VALU-GUARD INSPECTION  
7000 - MACHINE

SMU: 1512H Aug 31, 2017  
7320 - AIR CONDITIONER

9159490

9016 - VALU-GUARD INSPECTION  
7000 - MACHINE

SMU: 664H Feb 15, 2017  
4050 - FINAL DRIVE

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WO No 1504128 (ACT: 1) Ticket No 942268 (Aug 22, 2017) -  
01 2 C 035 - TROUBLESHOOT

WO No 1504128 (ACT: 1) Ticket No 942268 (Feb 15, 2017) -  
01 6.5 C 040 - INSPECT

AA 0 C 540 - PERFORM  
B1 4 C 056 - TRAVEL TO/FROM

AA 0.5 C 540 - PERFORM  
B1 0.5 C 056 - TRAVEL TO/FROM

REPAIR PROCESS COMMENTS:  
 OIL SAMPLE SHOWED HIGH LEVELS OF IRON (NC LEVELS OF CHROME. CUSTOMER SENT A PHOTO OF MAGNETIC PLUG. PLUG HAD A LARGE AMOUNT OF METAL PASTE. TRAVELED TO THE OBSITE. DRAIN THE FINAL DRIVE. REMOVED THE FINAL DRIVE COVER/CARRIER ASSEMBLY. WASHED AND INSPECTION GEAR. INSPECTED ALL COMPONENTS, AND FOUND DAMAGE. ASSEMBLED THE FINAL DRIVE. TORQUE MOUNTING BOLTS TO 350 FT LBS. FILLED THE FINAL DRIVE WITH 50 WT OIL. INSTRUCTED THE CUSTOMER TO CONTINUE MONITORING OIL SAMPLES. REMOVE COVER PLATE AND INSPECT RIGHT FINAL DRIVE FOR EXCESSIVE WEAR

142 [REDACTED]  
 Total: \$1,025.47

9132210

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7000 - MACHINE

056 - TRAVEL TO/FROM

C

1

B1

WO No. 1527468 (ACT: 1) Ticket No. 955274 (Jan 05, 2017) [REDACTED] SMU: 663H Jan 13, 2017  
 4050 - FINAL DRIVE

9137210

9137210

7000 - MACHINE

990 - DIAGNOSE & REPAIR

C

1.5

01

317 CUSTOMER COMPLAINT:  
 INSPECT RIGHT FINAL DRIVE  
 CAUSE OF FAILURE:  
 SAMPLE SHOWS INCREASE IN IRON  
 RESULTANT DAMAGE:  
 FLUID CHANGED

REPAIR PROCESS COMMENTS:  
 ARRIVED OUT ON JOB TOOK SAMPLE AND DRAINED HAND FINAL TOOK PICTURES AND REFILLED WITH SYN OIL SPOLE WITH TC AND THEY SAID TO HAVE CUSTOMER RUN THE MACHINE  
 OPEN RIGHT FINAL COVER AND INSPECT MAGNETIC PLUG HAS EXCESSIVE DEBRIS AND SO: BACK BAD

0 PERFORM FREE PETERSON CAT VALU-GARD INSPECTION [REDACTED]  
 93 [REDACTED]  
 Total: \$488.69

9139490

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9016 - VALU-GARD INSPECTION  
 7000 - MACHINE

540 - PERFORM

C

0

AA

056 - TRAVEL TO/FROM

C

1

B1

WO No. 1511652 (ACT: 1) Ticket No. 922867 (Oct 26, 2016) [REDACTED] SMU: 620H Nov 29, 2016  
 1059 - EXHAUST MANIFOLD

657 CUSTOMER COMPLAINT:  
 EXHAUST LEAK  
 CAUSE OF FAILURE:  
 SLIP JOINT ON EXHAUST MANIFOLD  
 REPAIR PROCESS COMMENTS:  
 DROVE TO MACHINE. FOUND SIGNS OF SOME BLU CYLINDER HEAD. CLEANED THE ENGINE AND RAN A BIT TO VERIFY SIGNS OF THE SLIP JOINT LEAK. FOUND A VERY SMALL LEAK AT THE REAR SLIP JOINT. LOOKED IN SIS AND FOUND MEDIA REHS7933 FOR REPAIR OF EXHAUST LEAK AT THE MANIFOLD JOINT. ORDERED THE PARTS UP. ONCE THE PARTS ARRIVED RETURN TO THE MACHINE. INSTALLED THE FILLER AND CLAMP ON BOTH JOINTS. HAD TO REMOVE THE PANEL TO INSTALL THE REAR ONE. STARTED THE MACHINE UP. CHECKED FOR EXHAUST LEAKS. NO WERE FOUND AND ALL IS GOOD.  
 T/S ENGINE FOR EXHAUST LEAK

108 CUSTOMER COMPLAINT:  
 HAVING TO ADD COOLANT  
 CAUSE OF FAILURE:  
 NONE

REPAIR PROCESS COMMENTS:  
 WHILE WORKING ON ANOTHER REPAIR, THE CUSTOMER STATED THAT THEY HAD TO ADD A COUPLE GALLONS OF COOLANT TO THE MACHINE. OPENED ALL OF THE COMPARTMENT DOORS. LOOKED FOR ANY SIGN OF OR STAINING. NOTHING WAS FOUND. TOLD THEM TO KEEP A WATCH ON THE COOLANT LEVEL AND TO INSPECT ENGINE FRO COOLANT LEAKS

9132210

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1000 - ENGINE

040 - INSPECT

C

1

02

16 PERFORM FREE PETERSON CAT VALU-GARD INSPECTION [REDACTED]  
 356 [REDACTED]  
 Total: \$1,136.35

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9016 - VALU-GARD INSPECTION  
 7000 - MACHINE

540 - PERFORM

C

0.5

AA

056 - TRAVEL TO/FROM

C

2.5

B1

